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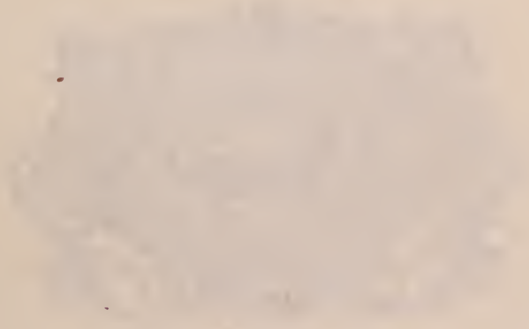

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THE NEW YORK
JOURNAL OF MEDICINE,

AND THE

COLLATERAL SCIENCES.

EDITED BY

CHARLES A. LEE, M.D.

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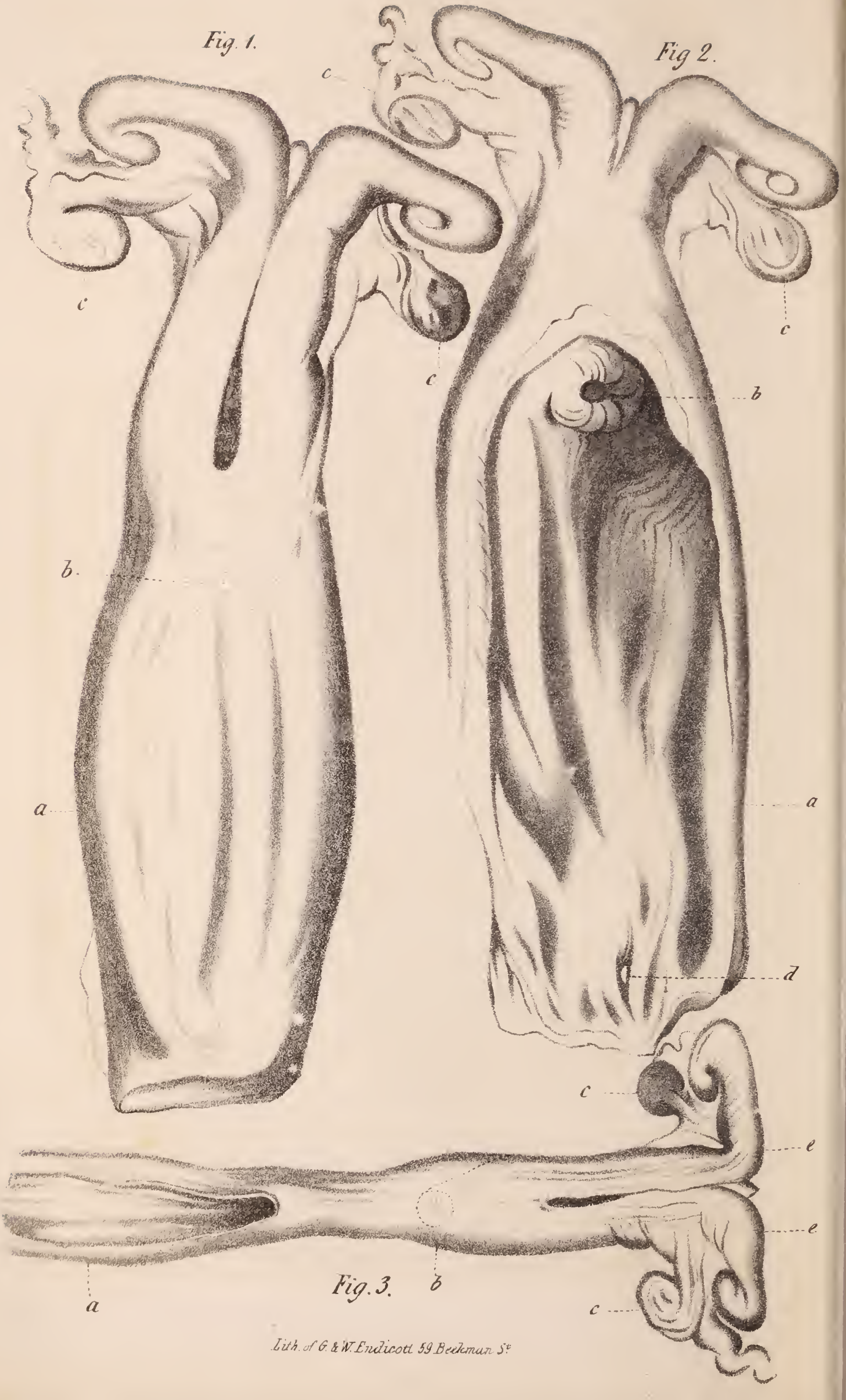

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2. A Practical and Theoretical Treatise on the Diagnosis, Pathology and Treatment of the Diseases of the Skin, &c. By Erasmus Wilson. Philadelphia: 1843. Pp. 364.

3. A Synopsis of the Symptoms, Diagnosis and Treatment of the more common and important of the Diseases of the Skin, with sixty colored figures. By N. Worcester, M.D., Professor, &c. Philadelphia: 1845. Pp. 292.

4. A Manual of the Diseases of the Skin. From the French of Messrs. Cazenave and Schedel; with Notes and Additions by Thomas H. Burgess, M.D.; revised and corrected, with additional Notes, by H. D. Bulkley, M.D., Lecturer on Diseases of the Skin, &c., &c. New York: J. & H. G. Langley. 1846. Pp. 340, ... 89

Art. XII.—1. The Chronic Diseases; their Specific Nature and Homœopathic Treatment. By Samuel Hahnemann. Translated and edited by Charles J. Hempel, M. D. With a Preface by Constantine Hering, M.D. New York: W. Radde. 3 vols., pp. 202, 323, 328.

2. The Homœopathic Examiner. By Drs. Gray and Hempel. Vol. IV., Nos. 1, 2, 3 and 4, July, August, September, October, 1845. William Radde, New York, ... 101

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Art. XV.—The Philosophy of Mystery. By Walter Cooper Dendy, M.D., Fellow and Honorary Librarian of the Medical Society of London, &c. New York: Harper & Brothers. 12mo., pp. 441, . . 112

Art. XVI.—The Anatomical Remembrancer; or, Complete Pocket Anatomist. Containing a concise description of Bones, Ligaments, Muscles, and Viscera; the Distribution of the Nerves, Blood-vessels, and Absorbents; the arrangement of the several Fasciæ, the organs of generation in the Male and Female; and the Organs of the Senses. From the Second London Edition. New York: Samuel S. & W. Wood. 1845. 18mo., pp. 245, ... ib

Art. XVII.—A Pocket Atlas of the Descriptive Anatomy of the Human Body. By J. M. Masse, M.D., Professor of Anatomy, Paris. Translated from the last Paris edition, and edited by Granville Sharp Pattison, M.D., &c. New York: Harper & Brothers. 12mo. 112 colored plates, ... 113

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Art. XIX.—Urinary Deposits: their Diagnosis, Pathology, and Therapeutical Indications. By Golding Bird, A.M., M.D., Assistant Physician to, and Lecturer on Materia Medica at, Guy's Hospital. Republished by Lea & Blanchard, Philadelphia. 1845. 8vo., pp. 222, . . . 114

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Art. XXI.—The Medical Remembrancer; or, Book of Emergencies: in which are concisely pointed out the immediate remedies to be adopted in the first moments of danger from Poisoning, Drowning, Apoplexy, Burns, and other accidents; with the tests of the principal poisons, and other useful information. By E. B. L. Shaw, M.R.C.S. and L.C.S. London: revised and improved by an American physician. New York: S. S. & W. Wood. 1845. 18mo., pp. 112, ... ib

Art. XXII.—A Lecture on the Philosophy of Medicine, Introductory to a Course of Lectures on the Institutes of Medicine and Materia Medica. Delivered before the Medical Class of the University of New York, at the Session of 1845–6. By Martyn Paine, A.M., M.D., Professor, &c., &c. New York: 1845–6. 8vo., pp. 19, . . - . . 115

Art. XXIII.—The Chemistry of Man. By Dr. J. Franz Simon. Translated by Thomas E. Day, M.A. and L.M., Cantab., Licentiate of the Royal College of Physicians. To be completed in two parts. Part I. Philadelphia: Lea & Blanchard. 1845. 8vo., pp. 292, . . . 116

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ART. XXV.—Commentaries on the History and Cure of Diseases. By WILLIAM HEBERDEN, M.D. (The Select Medical Library and Bulletin of Medical Science.) Edited by John Bell, M.D., &c. Philadelphia: Barrington & Haswell. 8vo., pp. 212, ... 117

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☞ All letters in regard to the *business* department of the Journal, and all remittances of money, should be addressed *exclusively* to the Publishers, J. & H. G. Langley; but books for Review, and Communications designed for publication, should be directed, *free of expense*, to the Editor of the New York Journal of Medicine, care of J. & H. G. Langley, New York. Persons at a distance, may direct parcels paid as above, under care of Barrington and Haswell, Philadelphia; W. D. Ticknor & Co., Boston; and Wiley and Putnam, London.

TO READERS AND CORRESPONDENTS.

Our next number will contain communications from Professor Draper, Drs. E. G. Ludlow, J. A. Swett, and T. A. Tellkampf, of this city; J. Wilson Kellogg, U. S. N., late surgeon to U. S. Ship *Preble;* Dr. Monell, of Newburgh; Dr. Elisha Doubleday, of Yates County, New York; Professor James Webster, of Rochester; S. W. Williams, of Deerfield, Mass., and L. Ticknor, of Salisbury, Conn. Dr. Rodgers' case of "Tying the left Subclavian Artery within the Scaleni Muscles," is necessarily deferred, owing to the plate not being completed. One or more reports from the Surgeon-General's office, U. S. A., may also be expected. The reviews of Dr. Dickson's Practice of Medicine and Harrison's Materia Medica, are necessarily deferred, as well as Dr. Tellkampf's analysis of Dr. Oppenheim's *Zeitschrift für die gesammte Medicine, &c.*, and Dr. F. Campbell Stewart's translations from late numbers of the *Gazette Médicale.*

The second volume of *Ranking's Half-Yearly Abstract of the Medical Sciences* has been received, and is in press. It will be sent, at an early day, to all subscribers who have paid in advance. J. C. and others, who desire to see more copious extracts from foreign journals in our pages, will bear in mind that Ranking is now sent to a large majority of our subscribers, making some 800 pages of selected matter annually, equal to the original and analytical departments of our Journal together. The "Abstract" should, in fact, be regarded either as an appendix to our Journal, or *vice versâ.*

We have received the following works since our last:—

Elements of Pathological Anatomy. Illustrated by colored engravings and 250 woodcuts. By SAMUEL D. GROSS, M.D., Professor of Surgery in the Medical Institute of Louisville, &c., &c. Second Edition, thoroughly revised and greatly enlarged. Philadelphia: Barrington & Haswell; Louisville: James Maxwell, jun. 1845. Large 8vo., pp. 822. (From the Publishers.)

Urinary Deposits: their Diagnosis, Pathology, and Therapeutical Indications. By GOLDING BIRD, A.M., M.D., Assistant Physician to, and Lecturer on Materia Medica at, Guy's Hospital, &c., &c. Philadelphia: Lea & Blanchard. 1845. 8vo. pp. 215. (From the Publishers.)

The Chronic Diseases: their Specific Nature and Homœopathic Treatment. By SAMUEL HAHNEMANN. Translated and edited by CHARLES J. HEMPEL, M.D., with a Preface by CONSTANTINE HERING, M.D. New York: William Radde, 322 Broadway. 3 vols., 12mo., pp. 202–328–323. (From the Publishers.)

Commentaries on the History and Cure of Diseases. By WM. HEBERDEN, M.D., From the last London edition. Philadelphia: Barrington & Haswell. 1845. 8vo. pp. 214. (From the Publishers.)

Braithwaite's Retrospect of Practical Medicine and Surgery. Part XI. Uniform American Edition. New York: Daniel Adee, 107 Fulton street. 8vo., pp. 214. (From the Publishers.)

A Tabular View of the Signs furnished by Auscultation and Percussion, &c. By O'BRYEN BELLINGHAM, M.D., M.R.C.S. in Ireland, &c. First American Edition, with Notes by USHER PARSONS, M.D. Plate. (From the Author.)

The Anatomical Remembrancer; or, Complete Pocket Anatomist, &c. From the Second London Edition, revised. New York: Samuel S. & William Wood, 261 Pearl street. 1845. 18mo., pp. 245. (From the Publishers.)

A Pocket Atlas of the Descriptive Anatomy of the Human Body. By J. N. MASSE, M.D., Professor of Anatomy, Paris. Translated from the last Paris Edition and edited by GRANVILLE SHARP PATTISON, M.D., Professor of Anatomy in the University of New York, &c., &c. New York: Harper & Brothers, 82 Cliff street. 1843. 12mo. 112 colored plates. (From the Publishers.)

Enchiridion Medicum; or, the Practice of Medicine. The result of fifty years experience. By C. W. HUFELAND, Professor in the University of Berlin, &c. From the Sixth German Edition. Translated by CASPAR BRUCKHAUSEN, M.S. Revised by R. NELSON, M.D. Second Edition. New York: William Radde, 322 Broadway. 12mo., pp. 630. (From the Publishers.)

Remarks on Supplying the City of Boston with Pure Water. By J. H. WILKINS. Second Edition, with additions. Boston: 1845. 8vo., pp. 44. (From the author.)

A System of Surgery. By J. M. CHELIUS, Doctor in Medicine and Surgery, &c., &c. Translated from the German, and accompanied with additional notes and observations, by JOHN F. SOUTH, Surgeon to St. Thomas's Hospital. Edited, with further additions, by G. W. NORRIS, M.D., Surgeon to Pennsylvania Hospital. Philadelphia: Lea & Blanchard. 1845. 8vo., pp. 132. (Part I. only received. From the Publishers.)

The Chemistry of Man. By Dr. J. Franz Simon, of Berlin. Translated by Thomas E. Day, M.A. and L.M., Cantab., &c. To be completed in two parts. Part I. Philadelphia: Lea & Blanchard. 8vo., pp. 292, with plates. (From the Publishers.)

A Manual of Auscultation and Percussion. By M. Barth, Agregé to the Faculty of Medicine of Paris, &c., and M. Henry Roger. Translated, with additions, by Francis G. Smith, M.D., Lecturer on Physiology in the Philadelphia Medical Association, &c. Philadelphia: Lindsay & Blakiston. 1845. 12mo., pp. 160. (From the Publishers.)

Outlines of the Nerves, with Short Descriptions; designed for the use of Medical Students. By John Neill, M.D., Demonstrator of Anatomy in the University of Pennsylvania. Philadelphia: Barrington & Haswell. 1845. 8vo. Nine plates. (From the Publishers.)

Summary of the Transactions of the College of Physicians of Philadelphia, from May to October, 1845, inclusive. Pamphlet, 8vo. (From the Secretary of Society.)

The Medical Remembrancer; or, Book of Emergencies, &c. By Edward B. L. Shaw, M.R.C.S. and L.A.S., &c. Revised and improved by an American physician. New York: S. S. & W. Wood, 261 Pearl street. 1845. 18mo., pp. 112. (From the Publishers.)

The Philosophy of Mystery. By Walter Cooper Dendy, Fellow of the Medical Society of London, &c., &c. New York: Harper & Brothers, 82 Cliff street. 1845. 12mo., pp. 442. (From the Publishers.)

Memoir of William Maclure, Esq., late President of the Academy of National Sciences of Philadelphia. By Samuel George Morton, M.D., one of the Vice-Presidents of the Institution. Second Edition. Philadelphia: 1844. 8vo., pp. 34. (From the Author.)

An Inquiry into the Distinctive Characteristics of the Aboriginal Race of America. By Samuel George Morton, M.D., author of "Crania Americana," &c. Second Edition. Philadelphia: 1844. 8vo., pp. 48. (From the Author.)

Manual of the Diseases of the Skin. From the French of MM. Cazenave and Schedel; with notes and additions, by Thomas H. Burgess, M.D., &c. Revised and corrected with additional notes, by H. D. Bulkley, M.D., Lecturer on Diseases of the Skin, &c. New York: J. & H. G. Langley, 8 Astor House. (From the Publishers.)

The following Medical Journals have been received in Exchange:—

The Dublin Medical Press.
The Dublin Journal of Medical Science, &c.
The London and Edinburgh Monthly Journal of Medical Science.
The Provincial Medical Journal.
The London Medical Gazette.
The American Journal of the Medical Sciences.
The Illinois Medical and Surgical Journal.
The New Orleans Medical Journal.
The Boston Medical and Surgical Journal.
The Western Journal of Medicine and Surgery.
The St. Louis Medical and Surgical Journal.
The Medical News.
The Philadelphia Medical Examiner.
The Bulletin of Medical Science.
The Southern Medical and Surgical Journal.
The Montreal Medical Gazette.
Silliman's Journal of the Arts and Sciences.
The American Journal of Pharmacy.
The American Journal and Library of Dental Science.
The American Journal of Insanity.
The Buffalo Medical and Surgical Journal.
The New York Medical and Surgical Reporter. Edited by C. T. Collins, M.D., &c.
The New York Medical Intelligencer; or, Eclectic Gazette. Edited by D. S. Meikleham.
Stockton's Dental Intelligencer. Vol. II. No. 1. Monthly.
The British American Journal of Medical and Physical Science. Vol. I. Nos. 1 to 9.

☞ Arrangements are in progress by which a regular medical correspondence is to be furnished by a contributor residing in Paris, which will put our readers in possession of the earliest medical intelligence from every part of Europe.

THE NEW YORK

JOURNAL OF MEDICINE.

FOR JANUARY, 1846.

PART FIRST.

Original Communications.

ART. I.—*Extracts from the Recorded Proceedings of the New York Medical and Surgical Society.*

MIDWIFERY.—At a stated meeting held March 15th, 1845, *Dr. Foster* reported a case of difficult labor, in which the Haighton Forceps, which are straight and rather longer than the ordinary short forceps, was successfully applied to the head, at the superior straight, after attempts had been made in vain to apply the long forceps with the double lever.

Dr. F. also related a case of a rather delicate woman, pregnant with her first child, in which venesection and antimonials were freely resorted to. Four days before the commencement of labor, as well as once about the middle of gestation, it had been necessary to bleed on account of symptoms threatening convulsions. In each case, xvi. ℥ of blood were taken with manifest relief. On the access of labor, the patient was kept awake all night, by pains of unusual severity. At 6 P. M., twenty-four hours after labor had begun, the head being still at the superior straight, and covered by the os uteri, which was only dilated far enough to admit the finger, xviii. ℥ of blood were taken. Three hours after, there being no alteration, the bleeding was repeated. After each bleeding the pains became stronger than before, and having always the true expulsive character. The os uteri became dilated about an inch and a quarter in diameter, and remained stationary. At half past ten I gave a solution of tartarized antimony (vi. gr. to the i. ʒ), a table spoonful was given at first, afterwards increasing the dose until the expiration of an hour. No perceptible effect having been produced, she took all that was left of the solution, 1½ ℥—this finally had the desired effect. The parts relaxed perfectly, and the pains continuing strong, she was delivered in half an hour of a strong and healthy child. No unusual weakness followed this active treatment; about an hour after the expulsion of the placenta, the patient vomited freely; but on the following morning, she was as well as women generally are after a severe labor.

Hydrocele cured by Electricity.—*Dr. F. Campbell Stewart* mentioned having recently cured a large Hydrocele, seventeen inches in circumference, and thirteen and a half from pubis to its base, by *Electricity;* one needle was inserted into the cavity of the tunica vaginalis testis, also one through the cellular tissue over the scrotum. The application of electricity was continued half an hour, and was attended with intense pain. *In forty-eight hours the fluid had entirely disappeared.* A second case treated in a similar manner was not successful.

Croup.—*Dr. J. A. Swett* reported having seen two cases of croup,* where a false membrane existed, *covering the mouth and gums*, but was thicker in the throat. In one case, the child had neither coughed nor cried, twenty-four hours before the appearance of the false membrane.

Stated Meeting—*April 5th*, 1845.

Insanity.—*Dr. James Macdonald* related a case of *Insanity*, occurring in a healthy boy, four years old. The first symptoms seemed to follow a fit of anger. He was refused permission to go into the country, and became very much excited. In the evening he was punished. This was followed by paroxysms of terror, the child having a frightened and startled look; sometimes he would become violent, striking at those around him, &c. This was in the latter part of June: there was heat of head, and the digestive organs were deranged. These latter were attended to, and then the shower-bath ordered; it however occasioned such terror that it was discontinued. A seton was placed in the back of the neck: some improvement followed, but the child again became worse, and gradually fell into a state of *idiocy*, passing urine and fæces involuntarily, losing the use of language, and acquiring a dull heavy look. The child was removed to the country, and on returning was attacked with intermittent fever of a tertian type. This was permitted to take its course, and continued till December. During its continuance, the mind gradually recovered its powers, so that by the middle of December the patient was entirely restored. There has been no instance of insanity in the family.

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* During a late residence at Geneva, N. Y. (Oct. and Nov., 1845), we found the membranous form of croup of very frequent occurrence, so much so, as to merit the appellation of epidemic. In three families, two children died in each, of the disease, in the course of two weeks, besides several others in different parts of the village. The disease came on for the most part very insidiously, with the usual symptoms of a cold, attended with a dry barking, ringing cough, a total suppression of the natural mucous secretion, and a deposit of albumen at a very early period of the disease. The larynx was evidently the part first affected, the inflammation gradually extending down the bronchi, until the whole mucous surface of the pulmonary structure was involved. The fatality of the disease was perhaps owing, in a great measure, to the late period at which the physician was called in. In three instances, however, which came within our knowledge, a homœopathic physician was called at a very early period, but the disease went on unchecked unto a fatal termination. In one instance a false membrane of tubular form, some two inches or more in length, was thrown off in the act of vomiting, after calomel had been given in two grain doses, every two hours, for twenty-four hours, with ipecacuanha in sufficient doses to keep up constant nausea. In this case, the patient, two and a half years old, died the day after the detachment of the membrane with every symptom of bronchitis, involving the minute structure of the lungs. In another instance, the operation of tracheotomy was performed by Dr. T. R. Spencer, on a fine boy of four years, and before there were any prominent signs that the disease had extended far below the chief rami of the bronchi; and although the operation was attended with striking and immediate relief (the general distress and dyspnœa being the greatest we have ever witnessed in this disease), the inflammation rapidly extended to the pulmonary cells, and death took place about twenty-four hours after the opening was made into the trachea. Both these cases occurred in the same family, and at the same time. A third child, the eldest, was attacked about the same time with the other two, but less severely. The disease was kept in check by antimony, ipecac, and hive syrup, followed by small doses of calomel and mercurial inunction over the trachea; by the two last remedies, the patient was supposed to have been saved. Is it owing to sensible changes in the atmosphere, in relation to heat and cold, moisture or dryness, &c., that croup is more rife at some periods than at others; or, is there some specific and unknown cause, to which the complaint may more properly be attributed? In relation to treatment, we may observe, that in the only instances in which we have succeeded in saving the patient after the formation of an albuminous deposit in the trachea, we attributed our success to the constitutional effects of mercury, rapidly produced by inunction and internal exhibition. Its modus operandi in these cases seems to be not only by checking the albuminous secretion, and promoting the absorption of that already effused, but in bringing on the natural secretion of mucus, beneath the false membrane, by which the latter is loosened, and by the operation of emetics thrown off by expectoration.—Ed.

SMALL POX.—*Dr. Dubois* mentioned a case of Petechial Small Pox, occurring in a young woman 18 or 19 years of age. The petechiæ were intermixed with the eruption, and the former were so numerous that the finger could scarcely be applied to the surface without touching one. There had been hæmorrhage from the lungs and vagina. The premonitory symptoms had been slight.

Dr. Macdonald remarked that he had seen several similar cases of disease, one of which had recovered under the use of brandy. In the hospital he had seen several cases, all of which had died before the eruption had well appeared.

Dr. Buckley had seen mild purpura occur along with varioloid, and attended with no danger.

Dr. Post mentioned a case of Small Pox, which had occurred in the hospital, where the patient had not been outside of the Institution for 4 or 5 months, and no case of Small Pox had been admitted into the building.

HYDROCEPHALUS.—*Dr. Swett* related a post mortem examination of a child 15 months old, who had died of Hydrocephalus. Previous to the occurrence of the fatal illness, the child had been healthy, though fretful from teething. On the physician being called, he found the child without fever; pulse slow, about 60; it was irritable and peevish; convulsions afterwards ensued, terminating in coma. The child had not been subject to cough, though some cough had been present a day or two before death. On opening the head, the arachnoid membrane was found somewhat opaque, particularly over the convolutions of the brain; there was much milky serum between it and the pia mater: there were also numerous little hard bodies about the size of a pin's head, and of a whitish or yellowish color, having their seat in the pia mater at the base of the brain. These bodies were particularly numerous about the fissure of Silvius. On removing the membrane, the substance of the brain itself was found somewhat congested; on cutting into its substance a copious discharge of serum took place from the ventricles. The formix and septum lucidum were reduced to a pulp. The base of the ventricles was superficially softened. The rest of the brain was natural.

On opening the chest, the summit of the left lung adhered, in a space the size of a half dollar. On removing the lung and cutting into it, a mass of unsoftened tuberculous matter was found, about the size of a hickory nut. The rest of the lungs, together with the bronchial glands, were healthy. In the abdomen, the spleen was studded with tubercles, of which there were perhaps 50 of moderate size. The mesenteric glands were slightly enlarged, but with no tuberculous deposite. The parents of the child were healthy, but the father was between 65 and 70, the mother young.

Croup.—*Dr. Swett* recurred to a case formerly reported. On visiting a child affected with croup, accompanied by false membrane lining the tonsils, his attention was called to another child in the room, 4 years of age, who had been vomited in the morning on account of the occasional croupy cough. At the time of my visit there was neither cough nor affection of voice present. On examining the throat, patches of false membrane existed here and there on the tonsils. Dr. S. cautioned the physician in attendance on the subject, and advised the application of a solution of the nitrate of silver. The disease, however, went on; the child was attacked with symptoms of croup, and died in a few days.

Hay Asthma.—*Dr. Swett* also had met with another singular case. He had been called into the country to visit a gentleman 70 years of age, apparently laboring under asthma. The patient, who had always been healthy and free from cough, rose at night, laboring under a violent paroxysm of dyspnœa. A physician was called in, who bled him with some relief, but the disease recurred. The paroxysm would generally last 15 or 20 minutes, and then subsiding, the patient would remain free from distress for several hours. On one occasion, the interval had been as long as 48 hours. Dr. S. found the patient on his arrival apparently well, with the exception of slight oppression of breathing. On examination, the respiration was found good, the action of the heart regular, and the pulse regular. Recollecting that asthma was occasionally brought on by breathing particular odors, Dr. S. inquired whether the patient had been exposed to anything unusual of the kind. The physician in attendance stated that he had, on the day of the attack, been employed in getting apples from a pit covered with hay. The hay and a portion of the apples had decayed, and gave out an offensive odor, which was probably the cause of the attack. Reference was then made to several cases, in which asthma had been produced by similar causes. The case of Dr. Perkins was mentioned, in whom asthma had been invariably produced by the smell of ipecacuanha. Dr. P. one day entered a drug store, and was instantly seized with the oppression of breathing, which precedes an attack. On inquiring, it was discovered that a clerk had two hours previously opened and exposed the powder of ipecac in weighing half an ounce.

Dr. H. Green related the case of Captain B. who had suffered for some time from chronic bronchial affection, attended sometimes at night with a sudden sense of suffocation, so intense as to cause a fear of immediate death. No cause was found on examination, until looking at the throat the uvula was found enormously enlarged, being about two inches long, and much thickened. On removing 1¾ inches of the elongated uvula the patient was cured. That portion of uvula removed, was of the length mentioned, and as thick as the little finger.

STATED MEETING—*April 19th*, 1845.

FATAL VACCINIA DURING WHOOPING COUGH.—*Dr. Vandervoort* reported a fatal case of *vaccinia* during whooping cough. The child was apparently of a healthy constitution, and vaccinated with the view of cutting short the disease. He was called to see the child on the third or fourth day, when hæmorrhage had occurred at the point of vaccination. The hæmorrhage had much increased during the paroxysm of coughing. This state of things continued for three weeks, notwithstanding the treatment, which had consisted in the application of cold and astringents, the child dying at length in a state of perfect anœmia. Dr. V. also mentions an instance of the purgative effect of *Pulv. Ipecacuanhæ Comp.* when administered as a sudorific.

HYDROCELE.—*Dr. Buel* reported having cured a case of hydrocele of long standing, by injection. There was considerable enlargement of the testicle, and the patient was predisposed to tuberculous disease. Dr. B. remarked upon the influence which discrepancy of age might have in inducing scrofulous disease, and mentioned a case where the father was sixty years and the mother was thirty, the offspring having an eczematous eruption upon different parts of the body; also an obstinate case of ophthalmia ensuing upon vaccination. Dr. B. also stated that he had cured three cases of *nævi* by vaccination; in one case the *nævus* was of the size of a Lima-bean, and situated on the wrist.

SUBCUTANEOUS TUMORS, &C.—*Dr. A. C. Post* reported a case occurring in hospital practice, of the existence of numerous irregular, hard subcutaneous tumors situated upon the thorax and abdomen. The two larger situated upon the thorax were two and a half inches in diameter: the patient complained of excruciating pain in the head and irritability of the stomach; was delirious several days and finally became comatose, with hemiplegia of the left side, and extreme dilatation of the right pupil. Blisters applied to the scalp afforded little or no relief, but repeated moxas to the nucha effected a cure. The irritability of the stomach was relieved by ice, and hydrocyanic acid. *Congenital erectile tumor.*—Dr. P. also mentioned having been consulted by a man aged twenty-seven, with a congenital, erectile tumor occupying the left cheek: the veins in the vicinity were enlarged. The tumor had remained quiescent for years, but had enlarged more rapidly within the last three years. The patient had remarked to Dr. P. that the tumor had increased very much in size in the spring of the year; also whenever he became excited. It had recently become quite inconvenient; hence an operation was decided upon. The left carotid artery was ligated on the 12th of April: there was a perceptible diminution in the size of the tumor after the operation, and which has continued to decrease. The circulation had not been re-established on the 19th of April. Dr. P. mentioned having recently performed the operation of lithotomy on a boy 5 years of age, and removed two calculi of irregular shape; thirty hours after the operation, the patient commenced passing urine through the urethra, and none through the wound, showing a perfect control over the bladder. Dr. P. remarked that a year previous he had performed a similar operation upon the boy; and that in the latter instance, he found the calculus to be friable, crushing beneath the forceps. The fragments were removed and the bladder carefully washed, convalescence was rapid; four months afterwards the symptoms of calculus again appeared, which led to the operation first mentioned.

STRANGULATED HERNIA.—*Dr. J. H. Griscom* reported a fatal case of strangulated femoral hernia; also another case of strangulated hernia, both of which had been mistaken for constipation, and treated by everything in the purgative line. When Dr. G. was called, he immediately asked if hernia existed, which, on examination, was found to be the case. *A tobacco enema* was used (in one instance) which produced prostration and vomiting; the hernia was readily reduced, and the patient recovered.

ENTERITIS, WITH MALFORMATION OF INTESTINAL CANAL.—*Dr. Swett* reported a case of inflammation of the muscular coat of the intestinal canal, producing constipation, fever, tension of abdomen, stercoraceous vomiting, &c. On *post mortem* examination, the *ilium* was found wholly wanting. There were fourteen feet of intestine, the jejunum terminating directly in the colon.

ANCHYLOSIS OF KNEE-JOINT.—*Dr. G. Buck* mentioned the result of an operation performed by him some time since on a man, viz.: the excision of a portion of the tibia and femur for anchylosed knee-joint; and stated that the limb was firm and strong, and that the patient was about to return home to Canada.

Dr. Green read a report of a fatal case of *puerperal mania*, and *Dr. Macdonald* of a fatal case of *insanity* (both of which we hope to be able to publish in our next number).

FOLLICULAR DISEASE OF THE BOWELS.—*Dr. Maxwell* mentioned the case of a lady with follicular disease of the bowels; who had been treated three weeks prior to her accouchement by a celebrated homœopathic physician. On the 3d day after her accouchement, Dr. M. was called in, and found that she had had twenty-one dejections attended with much tenesmus; and although the same condition of the bowels had existed from the first, the physician in attendance had stated that nature must take her course, and that he could, or would not, stay the progress of the disease.

STATED MEETING—*May 3d*, 1845.

HEMIPLEGIA.—*Dr. S. P. White* reported a case of hemiplegia of right side, in a lady fifty-nine years of age, who had arrived at church in perfect health, and during the service was observed to be apparently sleeping; the countenance presented a peculiar expression, although mistaken for that of sleep. The Dr. was called immediately after service, and found her speechless and motionless, with the peculiar expression above mentioned. The pulse was full and hard. She was bled in the erect posture, until the pulse became natural, and nausea ensued. She was removed to her dwelling; purgatives and revulsive remedies were then used; the patient rallied a little, but the power of speech and of the right side was never restored, and death ensued on the fourth day after the attack.

FATAL CONVULSIONS.—*Dr. Post* mentioned having been called to a child four and a half years of age, who had then been laboring under violent and incessant convulsions for half an hour, with loss of consciousness. He had been placed in a warm bath, and sinapisms applied to the feet before he arrived. Cold was applied to the head, cathartics and repeated enemata administered with some relief. The pulse could not be felt in consequence of the violent movements. The countenance was flushed and veins turgid. On opening a vein in the arm the blood flowed with astonishing impetuosity. Twelve ounces were drawn without producing any decided impression. There had been some little diminution of convulsions, but they returned with as great violence, and continued 2⅓ hours, when the child died. It had not been in good health for 18 months previous.

TUMOR IN NASAL CAVITY.—*Dr. Post* also mentioned having operated, May 2d, 1845, in the removal of a tumor in the nasal cavity. The subject was of spare habit, and the disease had been coming on for six months in the right nostril and fauces, and for six weeks past, had increased very rapidly. The tumor had depressed the velum, but did not adhere to it. It could be felt with the finger from the posterior fauces. It also filled partially the left nasal cavity. It was hard, irregular, and moveable; gave pain, and bled when handled. The tumor was drawn down, but could not be detached. A wire was passed along the floor of the nasal cavity, and by the assistance of the finger at the posterior fauces an attempt was made to pass it around the tumor. In this he was unsuccessful. The tumor was again drawn down; but a portion of it only could be excised. It bled about 10 ℥, when the bleeding was controlled by drawing the wire. The tumor presented a schirrous character, with the exception that it did not present the appearance of bands; neither could fatty matter be pressed out of it. Dr. P. suggested at the time of the operation the propriety of dissecting off the nose, thus opening the nasal cavity, and removing the tumor. In this plan, however, there was not a concurrence of opinion. The Dr. had no doubt but he would have been successful in the removal of the tumor, if this plan had been pursued—as it was, the operation did not succeed.

RECURRENCE OF MEASLES.—*Dr. Vandervoort* mentioned that a patient who had a severe attack of measles about two years ago, had experienced a second attack recently. The eruption appeared on the 4th day, with slight sore throat, and abdominal tenderness, absence of cough, and sore eyes. The Dr. remarked that, according to his experience, whenever abdominal tenderness existed, the catarrhal symptoms were usually very slight.

POISONING BY OPIUM.—*Dr. Stewart* reported that he had been called to a young man who had taken ℥ j of tinct. opii., and was relieved by an emetic and stimulants. On the following day the young man called at the Doctor's office and thanked him for his attention; while sitting in his chair he was observed by the Dr. to be disposed to sleep; charged him with having taken laudanum again. He was sent home. He resisted the use of the stomach pump; 60 grs. of sulph. zinc were immediately administered without producing any effect. Two ounces of mustard seed were then given with the desired effect.

Abscess in the Iliac Fossa.—*Dr. Stewart* also reported the case of a boy 4 years of age. A few hours after eating gingerbread and apples, he complained of pain in the iliac fossa. Cathartics were given, and leeches applied over the seat of pain. The case, however, terminated fatally. On examination after death, the cavity of the peritoneum was found to contain a pint of purulent matter. There was an abscess, the size of a walnut, in the iliac fossa, without the peritoneum. The vermiform appendix of the cæcum was gangrenous, and stopped up with fæcal matter. The ileo-cæcal valve was congested and softened, communicating with the abscess.

Secondary Syphilis.—*Dr. McCready* mentioned having treated a man successfully with mercury, who labored under secondary syphilis, after other remedies had failed. He had had sore throat, eruptions, and periostitis, and finally lost the sight of one eye. The iris was not affected. Put upon the use of mercury, and sight was restored. Concluded that it must have been periostitis involving the socket of the eye, and thus obstructing vision by pressure on the nerve.

Rheumatism.—*Dr. McCready* reported having successfully treated two cases of acute rheumatism by the saturated tincture of the root of the *aconite ;* commencing with 6 drops, increased to 10 drops, three times a day.

Dr. Post mentioned a case where a needle had been run into the foot, in the region of the internal plantar nerve. It could not be found ; it produced great pain along the nerve, and epilepsy. Cure was effected by rubbing $\frac{1}{8}$ gr. of *veratrina* along the course of the nerve three times a day.

Chorea.—*Dr. Beadle* stated that on a former occasion he had reported several cases of chorea, successfully treated by the use of the tincture of black cahash (*actœa racemosa*), that he had recently given it to a patient aged nine years, but not with the usual good effects. He had then resorted to *Fowler's solution*, five drops three times daily, with the effect of speedily accomplishing a cure.

Tetanus.—*Dr. H. D. Buckley* reported a fatal case of tetanus following a punctured wound from a nail. Assafœtida was freely given to the extent of 300 grains in twenty-four hours ; with extract of belladonna ; assafœtida enemata, and brandy. Dr. B. also mentions the favorable effects he had derived from the application of leeches to the lip for lepus hypertrophy, followed by the use of *Donovan's liquor arsen.*, gtts. xv., three times a day, with douches and fumigations of iodine of lead. In six weeks the patient was nearly cured.

Stated Meeting—*May* 17, 1845.

Natural Cow-Pox.—*Dr. Post* mentioned having lately seen an interesting case of natural cow-pox derived directly from the cow. It occurred in a young milkman, who stated that he believed he had had the small-pox when a child. There were four or five well-formed, circular, pearl-colored vesicles, on each hand about the knuckles. The hands were swollen, and the axilla painful.*

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* Two or three years since, we observed the cow-pox in a cow that was kept on board one of the New York and Liverpool packets, for the purpose of furnishing

Dr. P. stated that an interesting specimen had been handed to him a day or two since. A gentleman at present at the Astor House, had last summer eaten some cherries and swallowed the stones. Since then his health had been greatly impaired. He had been subject to indigestion, attended with hectic fever. Last week he took an emetic and vomited twelve cherry stones ;—of these Dr. P. brought three with him; the surface of them was blackened, and they were commencing to split. Dr. *Clark* stated that Dr. Jackson of Boston preserved a small box of shot, taken from the body of a sporting gentleman, who had shot a bird, and then ate it, swallowing the shot. His death was occasioned by disease, having no connexion with the shot.

CANCER OF LIP.—*Dr. Post* mentioned having recently operated at the hospital for the removal of cancer of the lip. The cancer was in the middle of the lip ; the adjacent parts were sound ; then there was another tubercle, and next to that a fissure. He had operated according to the method of M. Serres of Montpelier, by which the disagreeable puckering of the lip attendant upon the ordinary method of taking out a triangular piece, was avoided ; a quadrangular piece, including the diseased portion, was removed, and the lower incision extended both ways into the cheek. The edges of the vertical cuts were then brought together to form a new lip.

ANEURISM.—*Dr. G. Buck* mentioned having seen to-day with Dr. Hoffman, a patient at Sing Sing. The man, a prisoner, when received last winter, was laboring under popliteal aneurism. Pressure was tried at first, but failed, and the ordinary operation was afterwards resorted to, which proved successful. The tumor, and its attendant lameness, afterwards gradually disappeared. On examining the patient, an aneurism was found in the popliteal space of the right leg, smaller than the first, being about half the size of an egg. On examining the limb formerly operated on, could find no vestige of the former tumor. There was no disease of the heart, nor anything discoverable to account for the formation of the second aneurism.

VACCINATION AND REVACCINATION.—*Dr. F. C. Stewart* read a report of cases of vaccination and revaccination in 135 cases of children under the age of fifteen years, and most of them in a public institution.

CLASS I.—*Of those possessing large and evident scars, the result of previous vaccination, there were seventy-one.*

CLASS II.—*Of those in whom the signs of previous vaccination were undecided, or the scars doubtful, there were thirteen.*

CLASS III.—*Of those in whom no trace of previous vaccination could be detected, there were fifty-one. Total, one hundred and thirty-five.*

Results.—But of the seventy-one (1st Class) vaccination succeeded in nineteen, giving about 26$\frac{2}{3}$ per cent. In these cases there were some very well marked vesicles close along side of the old scars. But of the 2d Class, or those in whom there were doubtful traces of previous vac-

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milk to the passengers. There were several large, well-formed pock on the udder, and we were informed by an officer of the vessel that the disease was of very frequent occurrence in cows kept on board of packet ships—we took some of the matter, and vaccinated several children with it, but in no instance did it take effect.—*Ed* cination, nine out of the thirteen took; giving a per centage of 70. Of those belonging to the 3d Class, comprising fifty-one, in whom no trace of previous vaccination could be detected, the operation was successful in forty-three, about 80 per cent. Some remarks having been made on petechial Small Pox, Dr. Clark stated that he had been informed by Dr. Osgood, attached to the Hospital on Blackwell's Island, that of sixty cases of small pox on the island, three had been petechial, all of whom had died.

Aphonia and Ulceration of Larynx.—*Dr. H. Green* stated that he had lately treated two cases of *aphonia*. In the first case it resulted apparently from the ulceration of the vocal ligaments. The disease of the larynx was of three years' standing; the aphonia had existed for two years. The case presented *all* the symptoms of ulceration of the larynx, given by Louis and Trousseau. After fifteen days daily application of the solution of nitrate of silver, of the strength of from forty to sixty grains to the ounce, the patient returned home at Connecticut, partially relieved. The next week Dr. G. received a letter stating that the cough had subsided, and the voice returned, and that he was much, if not permanently relieved. Dr. G. had been able to distinguish no physical signs of tuberculous lungs. The patient had had several slight attacks of hæmoptysis. The second case was that of a lady, who had been suffering from eighteen months to two years, from a chronic affection of the throat. For two months she had been laboring under complete aphonia. When Dr. G. called for the first time, she could not whisper so as to be heard five feet distant. The larynx was cauterized six times, when the voice returned. *Dr. Bulkley* inquired of Dr. G. whether he did not think the result might not have followed cauterization of the throat alone, and stated that he had seen a case, in which a lady was subject to occasional aphonia, where a caustic solution (20 grs. *nitrat.*, *argent*, to ℥) was applied about twelve times, for the most part every day with entire relief, and the relief continued permanent. Some remarks were then made by *Dr. Buck* as to the difficulty of distinguishing whether the matter removed on a sponge used for the application of a caustic solution, was purulent or not.

Headache.—Dr. McCready related cases of violent headache relieved by the use of the saturated *Tincture of Aconite* in doses of from four to five drops taken internally.

Stated Meeting—*June 7th*, 1845.

Scirrhous Uterus.—*Dr. Griscom* related the post-mortem examination of a woman 52 years of age, who had died of scirrhous uterus. She had been complaining for 9 years. On examination the *os tincæ*, and the posterior third of the uterus, were destroyed, involving the adjacent tissues.

Acute Hydrocephalus.—*Dr. Swett* related a case of what is usually called acute hydrocephalus, in a child 1 year of age. It was seized on the 6th of May with convulsions of the left side of the body; had had a cough for two months before convulsions; had emaciated, and was teething; at or about the same time had fallen off a bed, but appeared not to be injured. The skin was warm; pulse accelerated; bowels constipated, and gums swollen (which were lanced). Administered a purgative of calomel, and ordered a warm bath. During the night I was called to see the child: found it vomiting, attended with fever and cough. Respiration was hurried; pulse 120; in convulsions, which continued 8 days, remitting; eyes squinting; pupils natural: notwithstanding the treatment, it became more and more stupid; pupils became dilated and sluggish; coma followed. Before death a discharge took place from the right ear; about which, there had been neither tenderness nor swelling. The child appeared to be somewhat relieved after the discharge took place. In a day or two fever set in; respiration became hurried and oppressed, and continued in this state for 24 hours, when death took place.

Autopsy.—The convolutions of the brain appeared packed together; the arachnoid membrane opaque; on the right side of the brain, there was sub-arachnoid effusion of lymph, and white granulations. The same was observed at the base of the brain, and on the left hemisphere under the arachnoid membrane; the same was found in the fissure of Silvius. The ventricles were distended with semi-transparent fluid. The lungs, liver, spleen, kidneys, bladder, and intestines were studded with granulations. The mesenteric glands were enlarged, and contained tubercles. There was caries of the temporal bone; a needle could be passed into the brain through the ear.

STATED MEETING—*June* 21, 1845.

PROTRACTED LABOR.—*Dr. Post* mentioned a case of protracted labor in a young married lady. She had been married in October; during the month of March, she had been attacked with diarrhœa, which had continued 3 weeks, at which time the disease was controlled by the usual remedies, farinaceous diet, and keeping still in bed. On the 11th of May, 7 months after marriage, labor began and continued five days, with regular pains, which then ceased by the use of anodynes. In the beginning of June, she was again seized with labor pains; during the interval of the pains, the diarrhœa became aggravated; the labor progressed, and she was delivered of a child weighing five pounds, since which there had been no return of diarrhœa.

ABSENCE OF PECTORALIS MAJOR MUSCLE.—*Dr. P.* also reported an instance of such deficiency on the right side, with the exception of a small slip of the clavicular origin, which was very strong.

MALPRACTICE—PLEURITIS WITH PERITONITIS.—*Dr. Buel* reported an instance of violent disease, which had terminated fatally in forty-eight hours, under the treatment of an apothecary, who was entirely ignorant of the nature of the attack; the subject, a married woman of healthy constitution, who had contracted a cold during menstruation, having exposed herself at washing. (Not seen by Dr. B. till just before death.) Autopsical examination revealed that there was double pleurisy, with traces of lymphatic deposit. There had been peritonitis, which Dr. B. considered to have been the original disease. There was extensive effusion of lymph in the cavity of the peritoneum, with adhesion of the intestines.

DIABETES.—*Dr. Bulkley* reported a case of *diabetes*, presenting symptoms entirely new to him. The subject was a lady aged forty years. She had been under treatment two years; when first seen by Dr. B. she voided from six to eight quarts of urine daily. By adhering rigidly to the use of animal food, and using *phosphate of iron*, the quantity of urine had diminished to two quarts. Six months ago she was placed upon the use of *valerian*, and the *ammoniated copper*. Under this plan of treatment she had improved, while the thirst had abated. Dr. B. had observed that the urine was deprived of saccharine matter. Last night, June 20th, was called to see the lady, and found her with a pulse of 140; respiration very laborious; skin cold; breath very offensive; great restlessness; the bowels had been perfectly regular since she had begun to use the copper; previously to the use of which, the eating of half a dozen hickory nuts kept the bowels regular. A week previously to this attack she had eaten of *peas*, and shortly afterwards she observed that her breathing became oppressed with palpitation. Dr. B. administered *ol. ricini*, also an enema, which operated. He then gave *assafœtida*, and she rested well that night. This morning found her pulse 140; respiration 24; percussion clear over the chest; tongue inclined to be dry. Administered stimulants, wine, whey, and ammonia in the afternoon. The quantity of urine continued to be about one quart in twenty-four hours. There had been no change in the color or odor of the urine.

EPILEPSY.—*Dr. Macdonald* reported a case of epilepsy in a man aged forty-five years, who previously had enjoyed fair health; although he had had symptoms of dyspepsia. He was attacked during the night, after returning from a fishing excursion, having been observed by a friend who slept in the same room. Dr. M. saw him in the morning; he continued in the epileptic state till 12 A. M., without five minutes' cessation. The convulsions were frightful; and so severe, that it was ten days before he became conscious of his situation. The pulse remained unaltered. He was bled, and counter-irritants were used all over the body. Administered 220 drops of tincture of opium in two separate potions. Convulsions shortly ceased.

ABSENCE OF UTERUS.—*Dr. Foster* reported a case of a young lady, twenty-three years of age, who had never menstruated, and that the breasts were well developed, and that upon examination there was no evidence of the existence of uterus. He also further stated that he had used *iodine* successfully as an emmenagogue, where the menses had been suspended ten months, preceded by bleeding and purgatives. (*Adjourned to meet in September next.*)

REGULAR MEETING—*Sept. 6th*, 1845.

Dr. Vandervoort called the attention of the Society to the frequent occurrence of uterine hæmorrhage following parturition, and preceding the expulsion of the placenta, and stated a case. *Dr. White* reported a similar case, in a female who was supposed to have overrun her time three months.

Dr. McCready reported a case of delivery, in which the fœtus, with membranes complete, was expelled. The placenta was attached near the *os tincæ*. The child was still-born.

Severe injury: recovery.—*Dr. Post* stated that he was called about three weeks since to see a boy seven years of age, who had fallen from a second story window upon an iron railing. Two of the pointed rails entered the body; one near the crest of the ilium, producing a wound between two and three inches in length: the other behind and above the right ear, entering the skull, causing the protrusion of a portion of the brain. He was seen by Dr. P. two hours after the injury, at which time he was lying in a tranquil sleep. The wound of the head was enlarged, and the depressed bone elevated. For thirty hours he did not pass urine. This difficulty was relieved by the use of spts. nit. dulc. No symptoms of cerebral disturbance appeared, and he is now sufficiently well to go down stairs.

Dr. Green reported a case of injury of the head, occurring in a son of Major Noah, aged eight years, occasioned by a stick of timber falling upon the cranium. The injury was very extensive; eight pieces of bone were removed; requiring an incision nine inches in length.

Dr. Swett remarked that in conversation with a physician, he had been informed, that, in four cases of "*coup de soleil*," two died who were bled, and two, to whom moderate stimulants were given, recovered. This corresponded with his observations at the hospital during the summer. Dr. S. thought that the effects attributed to this cause (*coup de soleil*) were owing to exhaustion of the nervous system. The post mortem examinations showed no congestion of the brain and lungs, which is generally considered to be present in such cases.* (*Adjourned.*)

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* Our able collaborator, *Dr. B. Dowler*, of New Orleans, has probably thrown more light on the subject of *Coup de Soleil*, or *Sun-Stroke*, than any preceding writers. He has arranged solar diseases under the following divisions:—I. *Solar Exhaustion, or Syncope;* II. *Solar or Sun-pain;* III. *Solar Excitement, or Inflammation:* IV. *Solar Asphyxia.* According to Dr. D., solar exhaustion differs from solar asphyxia, both in symptoms and treatment. In solar asphyxia, the skin is extremely hot, and generally dry; there is a choking sensation and a total loss of sense. In solar exhaustion, the skin is moist, pale, and cool; the breathing is easy, though hurried; the pulse is small and soft; the vital forces fall into a temporary collapse, the senses remaining entire. Horizontal position, free air in the shade, external stimulants and frictions, are usually sufficient to restore the patient. Vomiting is very useful, and is easily excited, as there is usually nausea; warm water, and, if necessary, a few grains of ipecac may be given. Vomiting appears to throw the blood from the centre to the circumference. The pulse rises. Dr. D. thinks that that fatal disease of northern summers, occurring only in very hot weather, and which is generally ascribed to drinking cold water, is probably nothing but solar exhaustion, in which cold water has but a secondary agency. Solar, or, as it is commonly called by the people, sun-pain, is a chronic disease, in which the abdominal organs are more or less deranged, though the most remarkable symptom is pain in the head, while the sun is above the horizon. Solar excitement, or inflammatory reaction, sometimes follows solar asphyxia in the second degree, being attended with febrile heats, arterial throbbings, and headaches.

Dr. D. remarks that "*solar asphyxia*, or *coup de soleil*, has long been regarded as apoplexy; the entire loss of the senses, the universal paralysis, all seem, at first view, to sustain that common but erroneous opinion. In the worst cases of apoplexy, the patient is not always instantaneously deprived of volition, feeling and motion. The apoplectic, in the early stages of the malady, may be awakened, and can answer, though not able to speak more than a word or two. He will generally open his eyes on being spoken to; can swallow, and will start from the lancet, or the application of ice; and he possesses some power to move the muscles. Nothing of all this happens in solar asphyxia. Effusion of blood upon the brain, extravasation into the ventricles or substance, as well as congestion, are much more gradual in their effects. The depression of large portions of the skull, and the presence of enormous dots upon the brain, do not destroy all sensibility. The worst cases of apoplexy last from twelve to twenty-four hours generally; solar asphyxia as many minutes. Apoplexy affects one side, or half the body, with palsy, and sometimes is attended with convulsions. After the apoplectic fit goes off, the palsy often remains; sometimes permanently. Nothing of the kind occurs in solar asphyxia. In the former, the breath-

REGULAR MEETING.—*Sept. 20th*, 1845.

Dr. Foster stated that he had reported at a previous meeting a case of a woman, aged 23 years, who had neither uterus, nor ovaries, and that he had examined the patient recently and found the breasts small, instead of being moderately developed, as reported; and that the mons veneris and vulva were small,—about the size of a girl's 10 or 12 years of age,—that the vagina was two inches in length; the clitoris well formed, and became erect during examination of vagina by the finger.

HEMIPLEGIA.—*Dr. F.* reported also a case of hemiplegia in a child during dentition: he had lost the use of the left leg entirely, but had the partial use of the left arm. The treatment consisted in the use of stimulants, applied externally; under which the limb had been restored.

LITHOTOMY.—*Dr. Stone* detailed the steps of the operation of lithotomy. During the month of June, James Daly, aged 8 years, was brought to him, suffering from stone in the bladder—the symptoms of which had been present for nearly four years. Latterly he had had no rest,—had frequent calls to pass his urine, and when he did pass it, was seized with shiverings and shrieked from pain; grew thin and could hardly lie in bed; was obliged to sit up, and recline upon pillows placed upon the back of a chair.

I sounded him six or seven times and generally detected the stone,

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ing is unfrequent and snoring; the pulse is slow and hard. In the latter, the breathing is quick and rattling; the pulse rapid and gaseous. The former happens to the rich, the luxurious, the sedentary, the corpulent, the plethoric, those who have thick, short necks; the latter happens to the poor, the laborer, the exposed, who undergo hardship. The former happens in cold weather and in hot, in the day-time and at night; the latter only in hot weather and during the day. Solar asphyxia has no premonitory symptoms, except a sudden heat and dryness of the skin; neither headache, scintillations, nor any cerebral affection."

"Solar Asphyxia is probably an universal lesion of the nervous system; but more particularly of that part which is necessary to the pulmonary circulation. The blood which suddenly accumulates in the lungs, ceases to be arterialized; it gorges not only the blood-vessels, but infiltrates the pulmonary substance, forming the most perfect example of hyperæmia, and even penetrates the coverings of the lungs,—*pleura pulmonalis*,—and is copiously effused into the cavity of the chest, as I have repeatedly noticed. In this contest, the lungs are, probably, throughout the attack, in a collapsed, or passive state, permitting the blood not only to distend its proper vessels, but to permeate freely throughout the pulmonary texture, until the lung is, perhaps, one fourth heavier than usual. Whether the pulmonary congestion be the primary or secondary condition of isolation, I will not say; but I must remark, that of all morbid appearances of a congestive character, this is the least equivocal, so far as I have examined. Here nothing is ambiguous; the congestion and hyperæmia are truly wonderful. 'Although physiology teaches us that man is endowed with the power of maintaining the same heat of his body in all climates and situations, with few exceptions, still it is possible, under peculiar circumstances, that the body may become actually heated. A chemico-vital refrigeration, by means of perspiration or evaporation, is constantly going on,—in health especially, in hot climates. The fire-kings themselves, when in a heat of 500° or 600°, would roast and turn into cinders, were it not for this refrigerating process, in conjunction with a vital energy, which, for a time, neutralize the accumulating power of caloric. The solar heat probably accumulates upon the surface of the body faster than nature can refrigerate through the lungs and the skin, by evaporation; inequilibrium presses upon the vital energy, which being exhausted in the contest, as well as by excessive labor, is unable longer to neutralize the excess of temperature,—often 40° more than that of the body. Vital chemistry is unequal to the task of preventing the conduction of heat into the body, and death is the consequence."—(*N. Y. Med. Gaz., vol.* i., p. 209.)

but not always. Twice I was unsuccessful, although the stone was of considerable size. Dr. Foster, who had been requested to sound him during my absence from town, was also unsuccessful. Having kept him quiet for a few days, on gruel diet, and flax-seed tea with soda in it, I proceeded to the operation the 29th of June. The day previous, his bowels were evacuated by a dose of oil, and the rectum was washed out by an injection, a few hours before the operation. The external incisions were made as usual in the lateral operation, directing particular attention to make them low in the perineum and deep in the fat by the side of the rectum. I then inserted the point of the scalpel through the membranous part of the urethra, into the groove of the staff, and passed it steadily forwards into the bladder, until the urine was evacuated. My intention was to have completed the operation with the scalpel, but when the urine, which was very little, had flowed away, the bladder was found so contracted, that it was feared that the point of the scalpel might wound the opposite side of the bladder. Mr. Blizard's probe-ended lithotomy knife was therefore substituted for it; the staff brought forward, and the incision finished. Dr. Foster held the staff during the operation, with its concavity close under the pubes, and its handle a little inclined towards the right groin, so that the groove of the instrument might face the incisions which were to be made in the perineum. By holding the staff thus, I thought that the operation could be very easily performed with the scalpel, and with very little danger of wounding the rectum; for whilst the urethra was raised by the staff upwards from the rectum, this last could be depressed with the forefinger of my left hand, and the scalpel, with its blade guarded by the forefinger of the right hand, might be passed into the bladder without danger to the rectum, or anything else which ought to be avoided.

This method was followed with success, and as far as one case can, establishes its utility and safety. I felt a preference for the scalpel, nor have I yet lost my predilection for it, but think it as good, if not better, than any other knife, provided that its blade is narrow, and its point rounded. There was but very little hæmorrhage; one small artery bled, and might easily have been tied, but that was not done, and it gave no subsequent trouble. The bladder was contracted upon the stone, so that two attempts to seize it with the forceps were unsuccessful; but having raised it from its bed with the scoop, it was easily seized and extracted. It weighed exactly five drachms. No dressings were applied to the wound; forty drops of paregoric were given immediately after the operation, and repeated at bed-time on account of certain spasmodic twitches, which kept him awake. The wound granulated and slowly contracted, and in about five weeks all of the urine passed through the penis. About this time, during the absence of the mother, he ran from the house and played for an hour; at the expiration of which time he was affected with swelling of the left thigh, leg and scrotum. Notice was immediately sent to me, but I did not see him till twelve hours had expired. Then the swelling of the limb had disappeared, but the scrotum was swollen and painful. The peritoneum was not tender, and there was only a slight pain about the left groin. The symptoms were very slight, and yet I was disposed to regard it as infiltration of urine into the scrotum, although I could not well explain how it arrived there. I attempted to pass a female catheter through the perineum into the bladder, but failed; it could be passed only to the depth of a quarter of an inch. I then incised the cellular membrane of the scrotum, and directed a poultice to be applied. This wound, and the wound in the perineum, healed in about a week, or about six weeks after the operation was performed. He is now well and goes about; has grown very fat; eats well, sleeps well, and all the urine passes, of a natural color, through the penis. The testicle, however, is slightly swollen, and similar in appearance to what is usually seen after the cure of hydrocele by injection.

ANENCEPHALOUS FŒTUS.—*Dr. Beadle* reported a case of *anencephalous* child, being the second case of the kind which had occurred to him during his practice. *Autopsy.*—On examination, the spinal cord was found to be of a natural appearance, until the atlas was reached, where the spinal cord terminated abruptly into a few filaments of nerve. Dr. B. remarked that he had observed that the flesh was very firm, and furthermore that the woman was unusually large during the term of gestation; also that, in this instance, though the mother of children, she had never felt pain in the hypogastric region, but high up in the umbilical region. The membranes were found to be very tough, and were accordingly punctured, when *liquor amnii* was discharged to the extent of two gallons, being an unusually large quantity, and the largest he had ever witnessed under any circumstances.

RETENTION OF URINE.—*Dr. P.* mentioned a case of retention of urine. The urethra was free from stricture. The night before the retention, the patient passed urine as usual, and on rising in the morning, passed urine in a full stream; but he found he could not urinate in the middle of the day, which was the peculiarity of the case. The usual remedies were used, together with the warm bath, which afforded no permanent relief. At 8, P. M., introduced a catheter, No. 6, to membranous portion of urethra, where there was great obstruction, and desisted from any further attempts. He now caused the patient to be bled to syncope, and administered the sesquichloride of iron. The 2d dose relieved him. Dr. P. also exhibited a penny, extracted from the œsophagus of a boy aged eight years, by the use of forceps. Dr. P. read a report of a case of neuralgia of the face and side of the head, occurring in his own person, which had resisted all remedies, until he had a molar tooth of the lower jaw extracted, which gave immediate relief. (See *N. Y. Jour. of Med., vol.* v., p. 311). *Dr. Stone* remarked that a boy had been brought to the dispensary, for the purpose of having a cent extracted from the œsophagus, and the plan pursued by him was, *to stand the boy on his head*, when the cent fell out.

POLYPUS ATTACHED TO EPIGLOTTIS.—*Dr. H. Green* reported that a young girl, aged nine years, had been brought to him, as was supposed, with enlarged tonsils. The symptoms attendant upon the case were, difficulty of breathing, and more particularly at night. On examination, he found that the tonsils were not sufficiently enlarged to require removal. But extending his observation, and pressing down the base of the tongue, a tumor, hanging by a pedicle, was discovered, about the size of a grape, and appeared to be attached to the epiglottis. The pedicle was cut with a scissors, and the tumor, which was a fibrous polypus, removed.

SPINA BIFIDA.—*Dr. McCready* reported the following case: having been called to a woman in labor, and after making an examination, he was unable to determine the presentation; he, however, left the patient three hours, and when he returned, found the pains had come on rapidly, and the membranes ruptured. The breech was found presenting, but to his surprise, he felt a tumor, which ruptured, and he could pass his finger into a cavity; it proved to be *spina bifida.*

LATENT PLEURISY WITH PNEUMONIA.—*Dr. Swett* mentioned the case of Dr. O. W.; which was, that after bathing, he suffered more or less, with flying pains about the chest, which was looked upon as being a rheumatic affection only. This condition remained without being relieved for about three weeks, when Dr. S. saw him. On examination, the disease was found to have extended to the pleura, pleurisy existing, with effusion and pneumonia.

STATED MEETING—*Oct. 4th*, 1845.

Dr. Foster stated a case of *narcotism*, produced by the application of a small quantity of the *ointment of stramonium* to the os tincæ; which continued four hours. *Dr. Garrish* mentioned a case of *ptyalism* from two grs. of the *bi-chl. hydrarg.* *Dr. Vandervoort* read a post mortem examination of a patient who died of granular disease of kidneys. *Dr. Post* reported in detail the origin, progress and removal of a tumor situated in the right labium, which had been fifteen years in attaining the size of a goose-egg. It was encysted, and its contents atheromatous. The specimen was exhibited to the society.—Also reported the cure of *night-blindness* in a sailor by the use of blue-pill, night and morning. *Dr. Beadle* stated that he had used *compressed sponge* in phymosis of eight years' standing, and with success. *Dr. Griscom* related a case of *chorea*, cured by *strychnine*, one sixteenth gr. three times a day, after Fowler's solution and carb. ferri had failed.—Also a case of *diabetes mellitus*, in which the quantity of urine voided was reduced from eight quarts in a day, to two quarts by the use of opium, one grain every four hours.

(*To be continued.*)

ART. II.—*Case of Lodgment and Retention of a Foreign Body in a Bronch s for the space of sixty years, with its final expulsion.* (Communicated by RODMAN BARTLETT, Student of Medicine, Salisbury, Conn.)

THE following case being somewhat unique in its character, may, perhaps, be deemed of sufficient interest to find a place in your valuable journal. It occurred in the practice of my preceptor, *Luther Ticknor, M.D.*, who is ready to vouch for the facts here stated.

Richard Moore, of Salisbury, Conn., now aged sixty-three years, inherited a good constitution, but when three years old, swallowed accidentally a piece of bone, which nearly suffocated him at the time, and which, from that day to the present, has produced a series of phenomena, which could only be accounted for, on the supposition that the bone was lodged in some portion of the bronchial tree. For a long time he was harassed night and day with cough, and severe dyspnœa, attended with a rattling, or sibilant rhoncus, fœtid breath, more or less pain deep in the right side, about opposite the fifth or sixth rib, and midway between the sternum and dorsal vertebræ. These symptoms continued to harass him until nearly the age of puberty, when other symptoms appeared, of a still more alarming nature. At this period, the cough began to be accompanied with expectoration of purulent matter, tinged with blood; attended also with marasmus or atrophy, and other symptoms of confirmed pulmonary disease. At the age of nineteen, he was suddenly attacked with hæmoptysis, which continued, at irregular intervals, for a series of years; during which time his general health and strength were greatly impaired, so that he was incapable of much exertion, being, indeed, confined to the house for more than eight years. At about the age of twenty-eight, his general health began to mend; although still troubled with cough. For the next fifteen or twenty years, he was able to perform some labor, though not without considerable inconvenience from the symptoms above mentioned. In January, 1844, for the first time, since the third year of his age, the cough suddenly left him, and did not return for several months, when it again began suddenly to harass him as before. On the 8th of October, 1845, he experienced a remarkably uneasy sensation, of a pricking nature, deep in the right side, which excited violent coughing, and after one or two severe paroxysms, he experienced a sensation as if something had ruptured, or given way. This was instantly followed by the passage of something into the trachea, producing suffocation, which was forcibly ejected upon the floor, succeeded by the expectoration of purulent matter streaked with blood. On examination, the foreign body turned out to be a *bone*, nearly three fourths of an inch in length, one fourth of an inch in breadth, and one twelfth in thickness, oblong and somewhat triangular in form, smooth and convex upon one surface, the other covered with sulci and protuberances. It appeared that the bone which he had originally swallowed, from the traditionary accounts preserved in the family, was a splinter from a rib from which he was sucking the meat, and it seemed highly probable, on examining the piece ejected, that this also was originally a portion of the same bone, as the spongy lamellæ were still visible on one side, while the smooth convex surface of the other was equally manifest. Now, then, are we not authorized in believing that this bone was lodged in one of the rami of the right bronchus for this long period of 60 years, producing the phenomena, which I have briefly described; including partial ulceration, whence proceeded the blood, and purulent matter, &c.? Your opinion on this point will be gratifying to one, at least, of your numerous friends and readers.

Salisbury, Conn., Nov. 15th, 1845.

[There are numerous cases on record, where foreign bodies have been lodged in one of the bronchial tubes for several years, but we know of no instance where a body of the size of that above described, has remained for so long a period in a bronchus, without causing fatal disease; and doubt whether a parallel case can be produced.—Ed.]

Art. III.—*Epidemic Erysipelas in Central New York.* By A. B. Shipman, M.D., of Cortlandville, N. Y., Prof. of Surgery, Laporte University, Indiana.

The Epidemic Erysipelas has prevailed in this (Cortland), and the adjoining counties, more or less, since the autumn of 1842. For several months previous to its appearance in an epidemic form, there was occasionally a sporadic case, and anginose complaints were exceedingly prevalent. These cases were marked by a sore throat, which was red, and aphthous, swelling of the tonsils and submaxillary glands, chills, fever, and general febrile disturbance of the system, but no external erysipelatous inflammation. I have no doubt but that this was the foreshadowing of the epidemic which followed; or the cause, less concentrated, which produced it. On referring to my note book, I find the following entry for the autumn of 1842.

"The diseases of autumn and fore part of winter, exhibited nothing peculiar in their aspect excepting a fever, attended with diarrhœa, smooth red tongue with tympanitis, terminating fatally in a great proportion of the cases. This fever prevails in Dryden, Tompkins County, and also in the town of Groton. It is a gastro-enteritis, and assumes a typhoid type toward its close. When emetics and drastic purgatives are freely used, it is quite apt to terminate in death. Anginose affections are also uncommonly prevalent, some cases terminating fatally in a few hours from the attack with a high degree of malignancy. Some are attended with petechiæ, and others with no affection of the skin." Of the fever mentioned above, I will merely remark that it did not differ materially from the autumnal fevers of this section of the State, excepting its being more uniformly attended with gastro-intestinal irritation, and inflammation, and its liability to diarrhœa, tympanitis and death.

This fever proved very fatal in the town of Dryden, and there were some few cases in Groton and Virgil. The first cases, or a great proportion of them, terminated fatally; especially where they were treated with purgatives of calomel, jalap, and tartrate of antimony and potassa. This practice, I am happy to say, does not meet the approbation of many physicians in this country; nor do I believe that that the fevers which have prevailed here for the last ten years, will tolerate such practice, whatever they may have done in years gone by. The first cases of an erysipelatous character that were witnessed here, occurred in the month of October, 1842, in the southwest part of the town. One case, that of an old lady, aged sixty-five, was taken with a severe chill on the 12th of October, in the evening. I did not see her that night; she was visited by another physician, who administered a cathartic and an emetic, but reaction only partially took place. I saw her on the afternoon of the 13th; she was then comatose with cold extremities, stertorous breathing, great swelling of the throat, and an erysipelatous eruption on the face and neck, pulse scarcely to be felt, rapid and thready—she died in the evening. The rest of the family had severe sore throats, and one of them a fever with sore and enlarged tonsillary glands, but no erysipelatous eruption. They all, however, recovered. A child in the neighborhood, three years old, had the disease in the erysipelatous form, which commenced in the throat, and spread to the face, neck, head and upper part of the trunk, but survived.

A man and his wife, who lived near neighbors to this patient, were taken down with the fever about the same time. There was a severe affection of the throat in both cases, and a fever of a typhoid type, with severe pain in the back of the neck, in the region of the medulla oblongata. These patients had no erysipelatous eruption, but the man had abscesses formed in both his legs, which proved fatal in both cases after three or four weeks of protracted suffering. I saw the cases but once, as I left home for the South, and did not return until some time in the month of January.

During the months of November and December, it prevailed to an alarming extent in this neighborhood, and spread into the adjoining towns. I have no means of getting at the exact number of cases or deaths which occurred, but it is probable that there might have been one hundred cases in all, counting such as required medication, and about twenty deaths. They did not all of them have the erysipelatous affection; but the fever was of the same character as those who did. From this point it extended into the towns of Groton on the northwest, and into Virgil on the southeast. In Groton it prevailed through the winter and spring months of 1843, proving very fatal in its course. To the southeast it progressed across the town of Virgil, touching the northern portion of the town of Marathon until it reached Freetown, a small town of about thirteen hundred inhabitants, a very healthy farming town. Here it prevailed throughout the winter and spring of 1843. Its ravages in this town were truly frightful. In the course of three months there were nearly forty deaths, and those mostly of adults. There was the greatest mortality in this town of any within my knowledge. From this town it spread into Solon, but there were only a few cases, and not many deaths. It also went into the town of Cincinnatus, but there were but ten or fifteen cases in all, as I was informed by Dr. Eldridge, and none of them proved fatal. From Groton it extended north into Milan and Owasco. In Milan it was very malignant, and there were a great many deaths. It prevailed through the summer of 1843 in all the towns mentioned, but the cases were less frequent, more mild, and but few deaths. In the autumn of '44 it made its appearance in the town of Niles, Cayuga Co., in the practice of Dr. Wm. F. Cooper.

In the course of two months Dr. Cooper treated about one hundred and fifty cases of the disease—a great proportion of them were of a malignant character. There were ten deaths among the whole number, including four cases of puerperal peritonitis, which were the only cases occurring during the prevalence of the epidemic. This created much alarm in the neighborhood, as many believed the Doctor was instrumental in disseminating the contagion. The disease subsided, in a great measure, in the towns of Niles and Sempronius by the first of December, but occasionally a sporadic case would occur during the winter of '45, and many anomalous forms of disease which, in all probability, received their character from the epidemic diathesis; some of the cases, perhaps, I may mention before closing this article.

In the spring of '45 the epidemic made its appearance in various parts of the county, but it did not assume the virulence which first characterized it. It passed over the old ground in many instances, but not epidemically as in the first instance. Some cases made their appearance in the early part of spring in the east part of this county, and were treated by Drs. Wiggins and Potter. One, a very protracted case, terminated in external abscesses, and the patient finally sank under it. In the northeast part of this county, in the town of Truxton, and the northeast corner of Homer, it became very prevalent in the months of March, April, and May. The cases were mostly treated by Dr. Blanchard of Truxton, and Dr. Patterson of Homer. In one neighborhood of two or three miles in extent, there were some ten or twelve deaths, and that in a population of some two hundred souls. In Madison county the disease prevailed but a little. In Onondaga county there have been but few cases. Dr. Clary, of Syracuse, informed me that he had treated a few cases in the town. Dr. Stewart also mentioned to me that he had seen something of the disease in Syracuse, and that it had assumed a highly malignant character in one or two cases which terminated fatally; but the disease has never prevailed to any great extent in Syracuse, or its vicinity. In travelling through Oneida county last spring, I heard of the disease prevailing in some few of the towns. At the present time it seems to have entirely disappeared.

The Disease as it appeared at Laporte, Indiana, in the winter of 1843.

In December, 1843, the epidemic made its appearance at Michigan city, a small town on the southeast shore of Lake Michigan; here it raged with great violence for two months. Out of a population of about 1000 souls 60 had the disease, 30 fatal cases, and these mostly adults. Puerperal females seemed peculiarly obnoxious to the disease, not more than one in ten escaping while the disease prevailed, and every case proving fatal except one. From Michigan city it spread to St. Joseph's county, though in a milder form; and, during the summer and autumn, spread over a wide section of country in Northern Indiana and Southern Michigan. It prevailed much in the summer of 1844 in Laporte county—several cases were of great severity, attacking the limbs and forming abscesses, and in two instances the bone becoming carious, so as to require amputation six weeks from the commencement of the disease. The amputated limb exhibited the bone exceedingly carious; and, in both instances, nearly the whole shaft of the femur was like honeycomb, and would fall to pieces as if macerated in strong acid. The foregoing account I derived from Prof. Meeker of Laporte, and from various physicians who practise in Northern Indiana.

In December, 1844, and January, 1845, I witnessed the disease myself at Laporte, and shall relate only two cases, which will give a general idea of the disease and method of treatment pursued. About the middle of December I was requested to visit J. W., æt 40, in company with Prof. Richards and Brown. He was a robust, healthy man, but had been for eight or ten years intemperate. We found that some ten days previous he had cut his great toe with an axe, and that it had been dressed by a quack, by putting some irritating substance into the wound. It pained him much, and about the fourth day it began to inflame and spread up the foot. He called in the same quack, who dressed the foot, and he continued to treat it by means of his acrid irritating applications. He was now seized with a rigor, followed by great reaction, delirium and a rapid extension of the inflammation. On the 6th day of the disease I saw him again—his pulse was 120, weak, skin bathed in a cold clammy perspiration, tongue foul, coated with a dark brown fur, bowels tympanitic, and mind wandering. The leg was enormously swollen, inflamed to the knee, of a dark purple color, vesicated and some gangrenous spots. Gave quinine, morphine, carb. ammonia, and wine—dressed the limb with a yeast poultice, and applied a blister above the inflamed part to reach round the limb. The next day he appeared better—no extension of the inflammation, pulse 100, limb less painful—continued same treatment. The next day he was worse, pulse 130, extension of the inflammation, which passed over the blistered surface, gangrene below the knee in large patches—applied creosote, with the poultice, and continued the tonics and stimulants. He has vomited, since I first saw him, dark like coffee grounds; singultus, delirium. The next day the limb was completely gangrenous, but the general symptoms no worse; there was an extension of the inflammation half way from the knee to the body—continued the anodynes and stimulants. The next day he was evidently sinking—petechiæ on all the surface of the body. He continued to sink and died comatose, with the leg completely gangrenous.

The other was the daughter of the Rev. J. R. Marshall of Laporte. She was a great favorite with the Medical class, seven or eight of whom boarded in the family. I mention this fact as bearing on the question of contagion, which will appear in the course of the case. She was nine years of age and very healthy. She was taken on Wednesday morning, the first of January, 1845. She complained of feeling cold, and had sore throat, was very feverish throughout the day, and at night high delirium. Some of the young gentlemen gave her a cathartic and cream of tartar. I saw her next day—skin very hot, pulse 130 per minute, tonsils inflamed; ordered calomel and ipecac, one grain each every two hours. She continued to grow worse; and January 3d, the symptoms were nearly the same. On the fourth day, as her mother was changing her dress, she made the discovery that the vulva was much inflamed and vesicated—it involved the labia and mons veneris, and had extended to the perineum and groins. Dr. Meeker, who was much in favor of strong iodine ointment as an external application, proposed using it, and it was applied—small doses of calomel, ipecac and pulv. antimonialis were given. 5th. The erysipelatous inflammation continues to spread in every direction at the rate of two inches in twenty-four hours—give quinine one grain every two hours in addition to the other treatment; surround the inflamed part with a strip of epispastic an inch wide. 6th. Inflammation spread beyond the blistered surface, pulse 140, and has turns of sinking—give carb. ammonia and quinine, brandy and wine. The inflammation is of a dark purple, and has extended to the abdomen, nates and thighs—apply strong solution of nit. silver, say sixty grains to the ounce of water; this is spread over the inflamed surface and a little to the edge of the sound skin. 7th. The surface is blackened by the application; she seems better, says the pain is less; constitutional symptoms better—continue the quinine, ammonia and brandy; pulse 120. 8th. No spreading beyond the limits of the application; symptoms all better, but still give the tonics and stimulants; the bowels are moved by enemata once in twenty-four hours, the secretions are not bad, except that the urine is voided only once in twenty-four hours. 9th. There was a paroxysm of fever in the night, and the inflammation extended beyong the limits of the application, but it appears faint in comparison to the first part affected; there is in some parts a desquamation of the skin, and the surface beneath looks healthy—apply the nitrate again to the recent inflammation, and continue the same treatment. 10th. She is convalescent, pulse 100, soft, no extension of the disease—continue treatment. 11th. Another paroxysm of fever in the night, and the inflammation ran over the surface rapidly, but it was very slight in degree, merely a red blush; the first parts attacked have desquamated, deep crusts thrown off, and some superficial sloughs which are rapidly healing—apply the nitrate again. The inflammation has now extended over the whole trunk, and on the legs to the knees, and on the arms to the elbows, yet except around the labia, nates, and perineum, it was very superficial: the circumference is much less intense than the centre; it seemed to lose much of its virulence after each application of the nitrate. From this time she rapidly recovered. In connection with this case I will state that a *subject* was brought into the dissecting room a week previous to this little girl being taken, who had evidently died with the erysipelatous epidemic. It was dissected by four young gentlemen, one of whom lived in the family of Mr. Marshall, and with whom this little girl was a great favorite, he having been in the habit daily of holding and caressing her in his lap. He was seized about the same time with a powerful rigor, sore inflamed throat, and high arterial excitement; he had great pain in the bowels, and agonizing pain in the back of the neck. He was bled three times the first twenty-four hours; took large doses of calomel and opium, and recovered in six days, without the eruption showing itself. The other three young gentlemen engaged in the dissection with him were taken nearly in the same manner, and as they were strong, healthy individuals, were treated promptly and actively; they recovered in a few days. Taking these things in connexion, the circumstances are in favor of the contagious nature of the disease, and, if so, these cases may be traced to the subject which was dissected by the young men. The man was a stranger who had travelled through Ohio and Michigan, where the disease was prevailing, and died at a public house, where the inmates were nearly all taken soon after, and several of them barely escaped dying.

The disease here did not differ materially from that already described as occurring at the East, and the treatment of course varied with the particular views of the practitioner who treated it. From the fact that Malaria is supposed to modify almost all of the diseases of the West, sulphate of quinine entered into the treatment of most of the cases as it does in other diseases of the West.

With regard to the fact that puerperal women were more in danger during the prevalence of the epidemic, it was abundantly verified at the West, and was so striking a fact, as to constitute a painful feature in the history of its progress. Through every section where it prevailed, occasionally a woman would seem to have the accession of the disease; previous to delivery she would have pain and tenderness in the uterine region, fever and chills; and, a few hours after delivery, she would be seized with rigors and high reaction, and the case would terminate rapidly in a fatal collapse. In many cases, it was suspected to be carried by the accoucheur, but nothing certain was elicited to prove it directly. Those who were the most engaged in the epidemic, had the most fatal cases of this kind; yet it is to be presumed that the proportions did not differ materially from the others.

Symptoms and Mode of Attack.—These I find were very various in different places, and in the same place at different times. While in the early part of the appearance of the epidemic, the sore throat was the first and most prominent symptom, yet subsequently it was only an occasional attendant. These cases differed little from an attack of scarlatina anginosa.

Severe rigors with pyrexia, inflamed and swollen tonsils extending into the pharynx and roof of the mouth, foul breath, intense pain in the head, back and loins; a hot dry skin, and a general diminution of all the secretions; in fact, it resembled closely an attack of scarlatina, without, however, the appearance of the eruption on the surface. This form of the disease was very prevalent for a year or more previous to the epidemic attended with the characteristic erysipelas. These cases, with few exceptions, would become convalescent on the fourth or fifth day, if judiciously treated; but, in some cases, especially in old worn out constitutions, death would speedily follow, in some instances before reaction was fully established. In that form of the disease where the eruption on the skin gave a qualifying character, the course of the disease was not materially different. The patient complained, perhaps, for some hours previous to the attack, of lassitude, irregular pains in the limbs, back and head, with slight chills and fever, and sore throat.

These were succeeded sooner or later by more severe rigors, with partial reaction; and while there was a full, frequent, and bounding pulse, the sense of cold was such as to call for more bed-clothes, or drawing near a fire after the complete establishment of the febrile stage. Sooner or later the erysipelatous inflammation made its appearance; this generally occurred from the third to the fifth day. This, for the most part, was about the face and neck, extending to the back and breast; at other times it commenced on other portions of the body—often about the genital organs and nates, often severe constitutional symptoms were present, such as excessive pyrexia, pain in the bowels, head, or chest; and, on the appearance of the eruption, all these symptoms would be greatly mitigated, and the case terminated favorably in the course of a few days; or there would be a sudden recession of the erysipelatous inflammation, with a return of the deep-seated pains, especially in the head and bowels, and the patient would die in a short time. At other times, the patient would be seized suddenly with a circumscribed pain in the finger, toe, or some part of the upper or lower extremities; this would be followed by high constitutional excitement, with delirium and low typhoid symptoms. The part attacked would become swollen and puffy, the skin assuming a dark purple appearance, and rapidly running into gangrene, or into deep and extensive disorganization of the cellular tissue; the consequent suppuration being imperfect, dissecting the muscles extensively, and large masses of disorganized tissue, mixed with thin, offensive, ill-digested pus. When this state of things occurred, the case was extremely dangerous; and, if the patient survived the first stage, a long tedious convalescence was the consequence, leaving the part useless for months, and often for years. In some instances, gangrene of the part took place at once, and death ensued; or a sloughing, more or less extensive, followed after a while by cicatrization and recovery. When the disease attacked the face, there would generally be deep-seated pain in the head for some time previous to the eruption; and, in almost every case, the pain would be most severe about the occipital region and back of the neck, and severe neuralgic pains in the arms.

This was so constant a symptom in these cases as to stamp it as pathognomonic. In other instances the patient would be seized with the ordinary pyrexial symptoms, with deep-seated and excruciating pain in the region of the breast; there would be fullness and tenderness of the part; this would, after a longer or shorter period, terminate in an abscess under the pectoral muscles, ending in an extensive disorganized cavity filled with pus and rotten pieces of cellular tissue, the disorganizing process often extending beneath the muscles of the trunk.

The latissimus dorsi and serratus were, in some instances, extensively diseased; these cases I believe were always fatal. An external wound or slight scratch often solicited an attack, the part becoming excessively painful, and terminating rapidly in gangrene or an extensive abscess. Every tissue of the body I believe was liable to be attacked. The mucous membranes were probably first on the list, and that of the throat, air cells of the lungs, and frontal sinuses. The stomach, bowels, and bladder often were the primary seat; and in the female the uterine cavity. The peritoneum, the pleura, and the dura mater and meninges of the brain, were often invaded. The cellular tissue, the muscles, tendons, fascias, periosteum, and even the bones themselves, were attacked, producing rapid and complete disorganization of the structure; the bone appearing as if subjected to the action of strong acids. The matter in these cases is peculiarly acrid, corroding the instrument used in opening the abscesses to such an extent as to spoil the polish. This matter, I have reason to believe, will communicate the disease if applied to an abraded surface, or at least will induce a troublesome and serious form of inflammation. But by far the most painful and fatal form of the epidemic was that where it occurred in puerperal cases. In all places, as far as I am acquainted, where the epidemic has prevailed, the occurrence of puerperal peritonitis has been a constant and striking feature; and, what renders that peculiarly mournful, is the apprehension that the same hand which is relied on for relief, should be the innocent cause of the destruction of our patient. On this point, I believe all who have witnessed much of the epidemic, agree; and most writers, who have noticed the occurrence of epidemic puerperal fever, have observed that erysipelatous fever was prevailing simultaneously.

The question may here be asked: Does the accoucheur infect the patient whom he attends? And, if so, what is the medium through which it is communicated? Is it his hand; or his clothes? I will answer. I believe it may be in both ways. The cases are too numerous, and too often noted, to render a mistake on this question probable. It has often occurred that epidemic erysipelas is prevailing in a neighborhood or town, and a practitioner much engaged in the one place where it prevails, is called into a healthy portion of the country to attend a parturient woman. In the course of twenty-four, forty-eight, or seventy-two hours, she is seized with a rigor, and high constitutional excitement follows. The abdominal region becomes the seat of great pain and tenderness; it runs a rapid course, and terminates fatally in from forty-eight hours to six days. On dissection, patches of gangrene of the peritoneum and abdominal organs are found; and dirty, sanious, and flocculent effusion is found in the cavity of the peritoneum. Perhaps the medical man cuts his finger in the course of the examination, or has an insignificant scratch on it; in a short time the wounded part becomes inflamed and painful, extending rapidly up the arm; there is now severe constitutional disturbance; the fever assumes a low typhoid type, and the patient dies, or lives with an extensive sloughing abscess, the constitution terribly shattered, and the limb rendered useless a long time, or for life. Such occurrences are now too common to excite much surprise. I will relate one case of the kind which is in point, at least as far as the puerperal portion is concerned.

On the 27th of October, 1844, I was called into the town of Sempronius, Cayuga county, to consult with Dr. Wm. F. Cooper, of Hellogsville, in the case of the wife of Mr. Barton Slade, aged twenty-four years. She was delivered of her first child by Dr. Cooper on the 25th. In twenty-four hours after delivery, she was taken with a rigor, followed by fever, great pain in the bowels, excessive thirst, suppression of the lochia, &c. Dr. Cooper bled her promptly as soon as reaction came on, and gave calomel and opium with fomentations to the abdomen; the bleeding was repeated again in a few hours, and the calomel followed by oleum ricini until copious stools were procured. I saw her on the 2d day of the attack in company with Drs. Cooper and Leavitt. The pulse was then 140 per minute and compressible, great anxiety of countenance which was deadly pale, and bathed in a clammy perspiration. The abdomen was greatly distended, exquisitely tender and tympanitic; mind wandering, thirst urgent, and not to be appeased. A large blister was applied to the abdomen, calomel and morphine were given every two hours. She continued to sink, and died on the morning of the 28th, seventy-two hours after the attack and ninety-six after delivery.

This was the fourth case that had occurred in the practice of Dr. Cooper, within two or three weeks, and the symptoms of the other three were very similar to this; but the others occurred in the midst of the erysipelatous cases, and all proved fatal within a week or less of confinement. This patient lived six miles from the seat of the epidemic, where Dr. Cooper was constantly employed day and night. Many cases had terminated in abscesses which required daily dressings. No more cases occurred in this part of the town at this time; but subsequently several sporadic cases of it appeared scattered over the northern portion of the town. After the occurrence of this case Dr. Cooper became extremely careful in ablutions and in changing his dress when called to a parturient woman, and no further cases of the kind occurred in his practice. It is possible this was an accidental case, but the chain of evidence is so strong and so well accords with the experience of others, that there is little doubt on the subject.

I have had no opportunities of making *post-mortem* examinations in this epidemic. I do not deem them of much importance in this disease, as the thing has been done so often, and the appearances have been so uniform, that no new appearances are to be looked for; besides, I consider it fraught with hazard to the operator, and may be the means of communicating a fatal disease to the next parturient female who falls under his care. Many anomalous cases of disease occurred during the prevalence of the epidemic, and how far they were connected with the prevailing diathesis remains to be seen. Before closing this communication, I shall relate some of them; and, while on the subject of puerperal cases, perhaps I may as well relate one, which, if not influenced by the epidemic diathesis, presented phenomena so similar as to be easily recognized. For the notes of this case, I am indebted to Homer O. Jewett, M.D., of Summer Hill, Cayuga county, whose patient she was, and with whom I consulted several times during its progress.

Summer Hill, August 12th, 1845.

Dr. Shipman:

Dear Sir :—In compliance with your request, I give the following from the imperfect sketch of Mrs. C's case in my note-book. Mrs. C., æt. 34, of nervo-sanguine temperament and habitually feeble health, mother of one child, now nine years of age, became pregnant in the latter part of 1843. During gestation she suffered frequent attacks of abdominal pain of a spasmodic character—those attacks increased in frequency and severity as gestation advanced, and were attended with considerable constitutional disturbance.

August 13, 1843, I was called to attend the patient in labor—found her at the full term and labor commenced. In about nine hours from my arrival she was delivered of a healthy fœtus of ordinary size—presentation and progress of labor natural, with nothing unusual, except that dilatation was very tardy, the os tincæ being rigid and extremely tender to the touch. There was also preternatural heat and tenderness of the vagina. The secundines were spontaneously expelled a few minutes after the child, considerable hemorrhage followed, and the patient had a slight chill, which soon passed off, and I left her "comfortable" in bed. On the 14th lacteal secretion commenced, lochia moderate, after pains frequent and severe, but intermissions perfect, slight febrile disturbance. 15th. Considerable febrile action, head-ache, nausea and thirst, with restlessness—sensation of bearing down and constant pain in the pelvic region, shooting through the back and down the limbs, abdomen tender, uterine globe somewhat enlarged, lochia suppressed, difficulty in voiding urine. Under treatment these symptoms abated gradually until the 19th, when the patient was seized with severe rigor, lasting about an hour, and succeeded by reaction, pulse 130 and tense, tongue foul, skin hot and dry, thirst urgent, nausea and vomiting, abdomen extremely tender, head-ache, extreme restlessness, excruciating pain in the hypogastric and sacral regions, extending down the limbs, &c., &c. 20th. Symptoms aggravated, pulse 140 and small, some perspiration, and a *miliary eruption diffused over the whole surface.* This disappeared in a few hours, and a diarrhœa set in with tenesmus, bowels tympanitic and profuse hemorrhage from them, hurried respiration, mind wandering; patient lies on her back, with her limbs drawn up. 21st. Collapse with extreme prostration, pain and abdominal tenderness has ceased, tongue dry and dark, pulse feeble and fluttering, feeling like a small vibratory thread, and at times almost imperceptible at the wrist, subsultus tendinum, involuntary discharges from bladder and bowels, extremities cold, with a cold clammy perspiration on the surface, countenance sunken and haggard. The whole aspect of the case indicated that she was in articulo mortis. Stimulants were now freely administered. At this time I was favored with your advice in consultation. It was then apprehended that incipient gangrene at least had taken place, and that the case would terminate fatally in a few hours. I remained with the patient during the night, and continued to administer stimulants. Wine, morphine, and carbonate ammonia were given in almost incredible quantities, and external warmth until reaction came on. On the following morning there was a very slight improvement in the symptoms. The sinking energies were, however, only kept up by the most assiduous attention, and a liberal use of stimulants for the three or four succeeding days, when the patient began evidently to improve. The convalescence was extremely slow and tedious, attended with much gastric irritation, and an occasional recurrence of the inflammatory symptoms. These, however, were readily allayed, and by a cautious use of tonics, stimulants and a generous diet, the patient was able to leave her bed in about eight weeks, since which time she has gradually improved, and is now enjoying her usual health.

This case bears a strong resemblance to those which occurred while the epidemic prevailed; but there were no cases of erysipelas in the neighborhood, though in the adjoining towns there were some few cases. Dr. Jewett was not at that time attending to cases of the epidemic; and, therefore, contagion had nothing to do with it—but it is to be presumed that the epidemic diathesis, in some degree at least, pervaded the neighborhoods and towns, although not in sufficient activity to develope the disease, except in those strongly predisposed to it.

Prognosis.—The *Prognosis* in epidemic erysipelas must, of course, depend on the form which the disease assumes, the type of fever, the age and constitution of the patient, and various other circumstances which attend each individual case. Where the disease is simple erysipelas, appears only on the surface, and does not spread rapidly and extensively; where it manifests no disposition to recede and attack internal organs, where the type of fever mild, the brain or its meninges not implicated, or where the patient is young and healthy, and the disease, under these circumstances, is seen early and treated judiciously, little danger may be apprehended. On the other hand, where the patient is advanced in years or is intemperate, where the brain is the part most affected, violent delirium attending, where the pleura, peritoneum and bowels become the seat, where a sudden recession takes place with a state of collapse supervening, or where some internal organ essential to life becomes consecutively affected, in all such cases, the prognosis must be exceedingly serious. In that form where a patient is suddenly seized in a circumscribed spot, and that assumes an early gangrenous appearance, the danger is very great. Where it attacks the breast, and abscesses form under the pectoral and other muscles of the trunk, the patient almost always ultimately dies. The case, however, is usually very protracted—weeks and often months ere the fatal period arrives. But by far the most dangerous and fatal form is that of puerperal peritonitis. It will be seen by the gentlemen who have written on the subject, how hopeless is a case of this character.

Drs. Hall and Dexter, of Vermont, in an excellent article in the American Journal of Medical Sciences for January, 1844, say "that in the county of Caledonia, Vt., thirty cases of puerperal peritonitis occurred, *only one of which recovered.*" "And in Bath, N. H., containing a population of 1500 or 1600, twenty mothers died of puerperal peritonitis, and about forty with erysipelas." In Michigan city, out of ten cases of puerperal peritonitis only one escaped (Prof. Meeker in Illinois Med. and Surg. Journal). The connection of puerperal peritonitis has been observed by Armstrong, Lee, Ferguson and Watson of London; Hey of Leeds; Robertson of Manchester, and Jackson in the United States.

Treatment.—This, of course, must depend upon many circumstances, which applies, not only to this, but to most other diseases of a febrile or inflammatory character. If the patient be young, robust, and of a good constitution, the attack violent, and attended with decided marks of inflammation in some organ of the body—as the brain, pleura, peritoneum, bowels, stomach, or uterus, prompt and early venesection should be resorted to. This, let me be understood, should be *early*, as soon as reaction is fully established. If this golden opportunity is lost, and the tendency to collapse is apparent, or if the fluids have become greatly deteriorated, and gangrene is on the point of taking place, then bleeding should never be thought of. Those cases tolerate venesection best, where there is violent pain in the occipital region, a full bounding pulse, and early cerebral disturbance, or where the pleura or peritoneum is the part implicated. In those cases where deep-seated abscesses form, I do not think that venesection practised at any period is of service, but will generally be detrimental in wasting the vital energies, without mitigating or controlling the subsequent suppuration. When the tonsils or the mucous membrane of the throat alone is affected, or there is simply the eruption on the surface, bleeding I deem not indicated, and may do harm; and, in puerperal peritonitis, although it has been practised to the greatest extent by every practitioner who has had occasion to treat it, yet the success that has attended it does not speak very highly in its favor; I confess, however, that I have no substitute to offer; but, should I ever have another case to treat with my present views, I should give calomel and opium to that extent as to control the pain with the one, and, with the other, to produce, if possible, the constitutional effects of mercury as speedily as possible. I have used it in three cases where I have every reason to believe that the disease was puerperal peritonitis; in each case it acted like a charm. The erysipelatous eruption in two of the cases appeared on the abdomen in forty-eight hours after commencing the treatment; in all of them the gums were but slightly affected, and the convalescence was rapid and permanent. I do not claim the practice as original or peculiar with me; but I do hope in a disease so eminently dangerous, that others may be induced to give it a trial. Fomentations to the abdomen should always be attended to, and violent and drastic purging carefully avoided; an emollient poultice over the entire abdomen, followed by a mustard sinapism as soon as the second or third day. This, with cooling acid drinks, should constitute nearly the whole treatment in a puerperal case; and I venture to say, that more cases would be saved than under copious venesection, active purgation, &c., &c. If venesection is not resorted to early, then do not use it at an advanced stage.

The next class of medicines most in vogue is emetics and cathartics; these should not, however, be indiscriminately resorted to, as is the custom with many routine practitioners. If the mucous membranes of the bronchia are affected, and there is much loose secretion in them, or where there is reason to think there is much crude ingesta in the stomach, an emetic of ipecacuanha, followed by copious draughts of warm water, may be of service; but where the brain is affected, or the mucous tissue of the stomach is inflamed, emetics may do harm.

In the use of cathartics, some precautions are also necessary; if the liver is torpid, the skin yellow, the bowels costive, a cathartic of calomel, followed by ol. ricini, would be judicious; avoiding everything of a drastic nature, for hypercatharsis is at all times highly pernicious in the early as well as the latter stages, particularly so if the mucous membrane of the intestines is involved in the disease.

Diaphoretics are very useful in every stage of the complaint; the best, perhaps as a general rule, is the pulvis antimonialis, combined with ipecac, or where an anodyne is required, the Dover's powder, combined with the James's powder; alkalies are no doubt useful through the several stages; the best, perhaps, is the bicarb. soda, and the acetate of ammonia, in the secondary stages with an excess of ammonia, is a very excellent preparation. Mucilages should be prescribed in all cases. With regard to tonics and stimulants, an early resort to them has generally been necessary where there was any tendency to collapse, or where marks of the typhoid type made their appearance. Carb. ammonia is one of the best stimulants we possess, because it may be given in inflammatory affections without fear; wine, brandy, and opium must be given as the exigencies of the case require. Quinine is given West as a febrifuge in this disease, and the more intense the pyrexia, the more it is indicated—so reason one class of physicians at the West, while others say that the malarious nature of the country indicates its use to destroy that principle; but what is the modus operandi of quinine? Is it a tonic, or a febrifuge? both vague and relative terms. Does it act as a tonic by destroying a morbid poison which weighs down the system? In this case it would be indirectly a tonic; or has it stimulant qualities, as wine, brandy, or iron? If so, it is a direct tonic. Brandy, wine, and iron do not act as a febrifuge, but quinine does; but I will not digress farther, as the profession are already at work on this matter.

Opiates I think should be used with caution in those cases where the brain and mucous membrane of the bronchia are involved, and in all cases where there is congestion of any of the internal organs, great caution is requisite until they are relieved; but where the bowels are disposed to run off, and in the protracted states of the disease, and especially in that form of it where abscesses have formed, the patient being worn down by pain, misery, and exhausting discharges, there it is when it exerts its truly divine powers by procuring tranquil nights, and sustaining the vital powers.

With regard to the external applications, a great variety have been recommended. The most important probably are the nitrate of silver and blisters; the nitrate of silver has been found, I apprehend, the most satisfactory and efficient of any yet used; in order to be of much service, it should be used strong—a saturated solution, or the stick itself, so as to blacken the surface and act on the cutis vera to some depth; and this should be applied over the inflamed surface, also a short distance beyond upon the sound skin. If the inflammation should extend over this boundary, another application must be made and repeated as often as necessary. In my own practice, it has been more satisfactory than all others. Blisters take rank next in point of utility. Here too they should be applied if possible, to interrupt the spread of the inflammation, by surrounding the disease by a cordon of plasters; a portion should be on the sound skin, and they should be allowed to blister deeply, or the disease will run over the blistered boundary. A caution in the use of blisters is, however, necessary in children, where the combined irritation of the disease and blisters may exhaust the vital energies; of this I speak advisedly, and have witnessed it myself, and been informed so by several medical gentlemen with whom I have conversed.

Iodine Ointment has many warm advocates, and in some cases is undoubtedly a good application, but is far inferior in most cases to the nitrate of silver. The Blue Mercurial Ointment which was so much in vogue some years ago, I believe has been tried fully in this epidemic; and, as far as I am informed, with little success: the lard it contains answers all the purposes of the ointment, and that has little power. The solution of sulphate of iron so highly praised by Velpeau, has not, in my hands, proved of much service. For the treatment of that variety where deep-seated abscesses form, I do not know that I can lay down any very definite or specific rules. These cases generally prove fatal at an early period, or a long tedious convalescence is before the patient; when tonics, stimulants, and anodynes are each and all to be put in requisition.

In those cases where the abscesses form under the pectoral muscles or latissimus dorsi, I believe there is little hope of recovery, but a long and protracted season of suffering is before the unfortunate patient; and hectic fever, cough, and diarrhœa, finally close the scene. An early and free opening should be made where matter forms; and, as it is generally diffused throughout a great extent of the cellular tissue, several openings may be necessary. Where the limbs are attacked with extensive abscesses, the bones becoming carious and denuded of their periosteum, or gangrene taking place, *amputation* may become necessary; two such cases occurred in the practice of Professor Meeker, of Indiana, where he amputated the thighs, and the patients both recovered. Extensive abscesses formed in these two patients, the muscles, cellular tissue, ligaments, periosteum and bones all became involved; and, although it had been but six weeks since the attack, such was the rapidity with which the bones became disorganized, that a light spongy shell was all that remained of the osseous structure. In the summer of 1843, I amputated a foot at the tarsal articulation of an old man, eighty-six years of age, for gangrene of the foot; this was supposed to be a case of the epidemic. He dropped a stick of wood on his great toe, excessive pain came on; and inflammation, severe constitutional fever, and gangrene, commenced in the great toe, involved the others, and continued to spread up the foot as far as the instep, when a free use of opium and brandy arrested it. It presented some of the characters of *gangrena senilis;* but as the epidemic was prevailing at the time in the town, it was the opinion of many physicians that it was induced by that cause; he lived several months after the amputation, and died of old age.

Another case where gangrene followed a simple fracture of the forearm, with a fever of the typhoid type, and where I amputated the arm near the shoulder joint, will be found in the course of this article. Also, that of a young gentleman, whose case I will briefly relate in this place, showing the manner in which slight abrasions of the skin will incite an attack, and its sudden metastatic form. Mr. Johnson had been a journey on horseback, and returned home on the evening of the 12th of January, 1843. This disease at that time was prevailing in the town of Marathon, where he resided; there was a slight abrasion on the arm, caused by friction of his clothes over the biceps muscle; when within a few miles of home his arm began to pain him to a great degree, and by the time he arrived home, he was in most intolerable misery—his arm was greatly swollen, and an erysipelatous inflammation extending. Dr. Barnes, of Marathon, was called—bled him, gave calomel, ipecac, &c. I saw him on the 17th of January, in company with Dr. Barnes. He had high symptomatic fever, pulse 120, bounding, and easily compressed; eyes sparkling, delirium, sordes on the teeth, and tongue foul and dark. The arm œdematous, vesicated, of a dark purple, a spot as large as the palm of the hand was gangrenous and was rapidly extending, and on handling it, a crepitus was heard from confined gas. A strip of epispastic, two inches wide, encircling the arm above the inflamed part, a poultice of yeast, charcoal, and creosote to the inflamed surface; morphine, quinine, and carb. ammonia in liberal doses were ordered.

Under this treatment he improved so far that the sloughs separated from the arm, the inflammation subsided, the fever abated, appetite, strength, &c., were returning, and we were congratulating ourselves on his speedy convalescence, when suddenly he was seized with pain in the great toe, which increased to the greatest violence; this soon showed signs of deep inflammation, spreading rapidly up the toe to the foot and leg; in the course of a few hours gangrene supervened, and rapidly involved the foot and leg, and he quickly sank.

Another case, although occurring in 1840, bore so much resemblance to these, that I am disposed to relate it here. A lady, æt. 37, plethoric and healthy, with the exception of severe paroxysms of sciatica, was taken with a fever of the synochus form. After passing along with the ordinary symptoms of that form of fever for a week, she was suddenly seized with what appeared as an apoplectic fit; dark purple countenance, frothing at the mouth, stertorous breathing, and profound coma. She was bled, head elevated and cupped, cold to head, purgatives, &c., &c. She lay in this condition two days, when she came out apparently clear. She was now sleepless and watchful, exquisitely sensitive to the least noise or light, which disturbed her, was delirious at night, and the mind filled with gloomy apprehensions. After three nights spent in this state, she fell into another comatose state; this lasted three days more before she fairly recovered enough to know where she was; in this way she was affected with alternate fits of coma and wakefulness. I began to think I had found one of those *protean* forms of disease that females are liable to, and that quieted my fears in a measure as to the ultimate termination. After six weeks of treatment, she became convalescent to all appearance; her appetite was good, she was able to sit up most of the day, and had improved in flesh and strength. She was seized suddenly about three o'clock in the afternoon with a pain in the great toe of the limb so long affected with sciatica; and the pain had increased in an hour so much that her cries were heard at a distance from the house. I was sent for, and arrived in four hours from the commencement of the pain. The whole foot and the leg to the knee were black and gangrenous; and before twelve o'clock, nine hours from the first attack, it had spread to the body. It is unnecessary to record the death of this woman so mysteriously and suddenly, after a series of fluctuations which alternately gave hope of life and threatened dissolution.

I will give the case of a young man in whom the disease commenced on the skin, and in the sub-cutaneous cellular tissue, and extended to the deep-seated parts; as it is a fair specimen of that form of the epidemic, I will present the symptoms and progress as presented to me, and related by Dr. Lanning, the attending physician. Hezekiah Hotchkiss, æt. 24, was driving coach between Truxton and McLean, in the month of May, 1845; at Truxton where he was stationed, the disease was prevailing epidemically. He was taken with a pain in the arm, a little below the insertion of the deltoid muscle; this he attributed at first to the friction of his clothes. It soon began to swell and look red, and became diffused and hard, as if an abscess might form; at the same time fever commenced, chills, pain in head, back and loins, and he was delirious at night. This increased progressively for a week when I saw him with Dr. Lanning. The inflammation involved nearly the whole arm above the elbow, and was extending into the axilla; it was hard, purple, and œdematous; the fever was typhoid; pulse 130, weak and irregular; tongue foul and dark; teeth encrusted with a dark sordes; mind wandering, and muttering in his sleep. He had taken calomel in the first stage as a cathartic; ipecac, pulvis antimonialis, alkalies and mucilages, had constituted the treatment up to this time.

I ordered quinine one gr. every four hours, morphine in the evening, and a carrot poultice to the arm; an imperfect suppuration took place in a few days and was opened, but the cellular tissue was extensively disorganized and looked like foul macerated flesh, which it was difficult to remove. The fever kept up, and toward the close assumed a hectic form with the exacerbation in the evening, night sweats, diarrhœa and aphthous mouth. The inflammation extended from the axilla to the chest, dipped down between the muscles of the chest, beneath the pectoral, latissimus dorsi, serrati, &c., &c., until they presented one extensive disorganized mass of pus, serum, bits of cellular tissue, muscle and fascia—all one extensive and ill defined abscess. He lived six weeks, and died from exhaustion and irritation. In some cases the disease commenced with a deep-seated pain in the breast under the pectoral muscles, with no external appearance of inflammation; but a fever would commence simultaneously, which, after a longer or shorter period, would assume a hectic character, with cough, expectoration, and death in from eight to twelve weeks. When an abscess formed deep beneath the muscles, it would generally be a long time in pointing; the pus would then be of tolerable good quality, but there would be no limits to the abscess extending in various directions beneath the muscles of the chest and back.

Several such cases fell under my observation during the winter of 1843, not one of which recovered. There was one circumstance connected with the epidemic here which I have never seen mentioned in the history of it in any place, and that was the great mortality which existed among cows in the spring of 1843, '44, and '45. This was principally in cows that had recently calved; they were taken in from twenty-four hours to six days with a fever and great swelling of the abdomen, and died in a short time. On dissection, the peritoneum was found inflamed and gangrenous patches on it, a dark fœtid matter in the abdomen, and sometimes the uterus was found gangrenous. A very intelligent farmer informed me of these facts, and likewise that he had been present at an autopsy of a woman who died of epidemic puerperal fever, and he was struck by the similarity in the appearance of the parts, and the quality of the matter found in the abdomen. This may all be fancy, but I firmly believe the two diseases identical; the disease prevailed simultaneously with the epidemic erysipelas, and ceased as that ceased. The fact is curious, and well worth the attention of the medical philosopher.

Quackery ever flourishes most in times of panic and distress; and, accordingly, quacks found this epidemic a fine field for the commencement of their exploits, but they were soon forced to capitulate, as the disease marched onward in spite of lobelia, and the infinitesimal doses of sugar of milk. Quackery flourishes best where it encounters imaginary diseases (and mankind furnish abundant aliment for the quack at all times), but, where a real disease occurs and that too of a dangerous character, the quack is soon discomfited, and science and education are appreciated. In many instances, I found that some wise old lady or meddlesome individual, who are to be found in all neighborhoods, had infallible cures at hand, generally in the shape of an application to the inflamed parts; and often these applications were the cause of serious mischief. In one case which I saw in consultation with Dr. Kelly, of Marathon, they had forced living frogs down the throat of a patient, to cure the inflamed tonsils! This had been carried to that extent, that we had reason to believe that it was instrumental in producing a great amount of suffering, and perhaps death. With some, tying a tow string that had been used in hanging a toad, around the neck of a patient, was considered an unfailing remedy; and, so long as these applications were harmless, they were not interfered with, but often they were decidedly pernicious and were promptly interdicted.

Anomalous Cases.—The following cases occurred during the prevalence of the epidemic; and, if the reader does not agree that they received a character from the prevailing epidemic diathesis, he may take them for what they are worth. On the 27th of July, 1843, I was requested to visit a son of Mr. Clow, near McGranville, in this county, in consultation with Dr. Wiggins. He was a healthy lad, ten years of age; and, in falling from a horse on Monday, four days previous, fractured his fore-arm near the middle. Dr. Wiggins was called and dressed the arm in the usual manner; in the evening he had a chill, as his mother informed me, and violent reaction came on with delirium, restlessness, &c. From this time until Wednesday the fever kept up, with great pain in the arm, which was dressed on Thursday morning for the first time. It was then found much swollen, vesicated, and in a state of gangrene. I saw him Thursday afternoon, and found high constitutional fever of a typhoid type, delirium, subsultus tendinum, involuntary discharges of fæces and urine, petechiæ on the skin, pulse rapid and intermittent, tongue black, and teeth covered with a black sordes. The arm was greatly swollen and gangrene was spreading; it was as high as the elbow, and inflammation on the skin of an erysipelatous character to within six inches of the shoulder joint. A blister was applied to encircle the arm above the gangrene, and liberal use of wine, morphine, quinine, and carb. ammonia was made; a yeast and charcoal poultice was applied over the whole arm with directions to change it often. On Sunday, three days after this, I received a notice that the gangrene had ceased spreading; accordingly, I visited him in company with Drs. Wiggins and Jewett. The gangrene had ceased at the beginning of the upper third of the arm, yet the inflammation extended several inches farther; his constitutional symptoms were, however, but little improved since my last visit; pulse 140, weak and fluttering, tongue dark and teeth foul. It was decided, however, that amputation offered the only chance for the patient, although this under the present circumstances seemed a forlorn hope. A large dose of morphine in brandy was given him, and during the operation, he was as quiet as the most sanguine believer in mesmerism might desire; and what is more remarkable, he did not remember the operation after recovery. I amputated the arm as near the shoulder joint as possible. The night following the amputation he slept more tranquil than any night since the fracture; and the next day after, August 1st, his pulse were more slow and full, his mind more clear, and tongue and teeth began to clean off the sordes which had covered them;

from this time his recovery was rapid, and he is now well and has been ever since.

John D. Greenfield, of Niles, Cayuga Co., was taken in the month of Jan'y, 1845, with a severe pain in the right side over the region of the liver. Dr. W. F. Cooper, of Kellogsville, was called, and bled him copiously, gave a full dose of calomel, &c. He pursued the antiphlogistic plan vigorously for two weeks, but the pain or fever was but little subdued—about this time his side became œdematous, and, after a while, a fluctuation was perceived. Dr. Cooper opened his side, and a large quantity of pus, highly tinged with bile, was discharged. This continued to run for a week, when it dried up; and, at the same time, he was seized with an excruciating pain on the fore part of the thigh at one third of the distance from the knee to the hip. This pain was without swelling for several days; was so excruciating as to deprive the patient of all sleep, nor was it mitigated by anodynes, of which he took immense quantities. After several days, a puffy swelling formed over the anterior part of the thigh, four inches above the knee. Dr. Cooper made an opening into it, but a small quantity of serum was all that was discharged. This gave no relief; but in about a week afterwards, when the patient was coughing, a gush of blood took place from the opening, which terrified the patient and his friends very much. Dr. Cooper was sent for, who examined it and found that it bled per saltum, and had the arterial color; but, as it came from some considerable depth, he plugged it with sponge and it stopped; from this time it bled daily, and was usually produced by a fit of coughing, while the pain, hemorrhage and symptomatic fever reduced him to an alarming state of debility. On the 6th of March I was requested to see him, and meet Dr. Cooper in consultation. His condition at this time was as follows: leg semiflexed on the thigh, and any attempt to move it attended with excruciating pain; from the knee to within six inches of the hip the thigh was greatly swollen and œdematous; it was exceedingly tender, and the closest scrutiny failed to detect fluctuation, his pulse 130, and weak, cough for eight weeks, night sweats, diarrhœa and hectic fever, his mouth was aphthous, and his appetite gone. From the long continued pain, fever and swelling, it was evident that there was an abscess near the bone, or that the bone itself was diseased, and that an opening was indicated. The patient was anxious that it should be done also. Accordingly, with a bistoury, I made a careful dissection through the skin six inches above the knee—this was carried through the fascia and muscles to the depth of $\frac{3}{4}$ths of an inch, when a large quantity of pus gushed out and continued to run until a quart was collected. It was very fœtid, and so acrid that my knife was instantly tarnished and blackened as if dipped into sulphuric acid. The bone was examined beneath, but the periosteum was sound, a tent was put into the opening, stimulants, opiates and tonics were freely given, and the patient rapidly recovered. It has been observed that, during the prevalence of an epidemic, other diseases assume the livery of that which is prevailing—so in this. The fevers were modified in their type, sore throat was a frequent attendant, and inflammatory affections were more or less modified in their character, and exhibited often the mark of the prevailing diathesis.

March 1, 1845, I was requested to visit a girl, æt. 15, the messenger informing me that she was dying from erysipelas. I visited her and found the patient apparently *in articulo mortis.* The history was this: two weeks previously she was taken with sore throat and dark purple spots on the surface—these ran into ulcerations of a phagedenic character. These ulcerations were around the mouth, on the face and forehead, and chest. The most excruciating pain was complained of in the back of the neck (which I have mentioned before as being so constant an attendant as to stamp it as characteristic). The surface of the skin was covered with vibices, and resembled a case of purpura hemorrhagica—the gums were inflamed and spongy, mouth filled with a black tenacious mucus, and sordes on the teeth which were horribly fœtid, pulse weak and frequent, diarrhœa, tympanitis, hemorrhage from the vagina. She had been under the care of a Thompsonian, who had given her lobelia, cayenne pepper, and "Number Six," until they became alarmed at the hemorrhage from the nose, and sent for me. The aspect of the case was such that little hope could be indulged in, but I gave her creasote, one drop every half hour; after taking the second dose the hemorrhage ceased, and I prescribed carb. ammonia, quinine, brandy, muriatic acid diluted, and applied to the phagedenic ulcerations a solution of chloride of sodium. She improved under this course a few days, and as I was obliged to be absent, the friends called the same quack who first prescribed for her, as if determined that he should finish what he had so auspiciously began; and, under the pretence of cleansing the stomach with a lobelia emetic, the poor girl was at once sacrificed. In the history of this epidemic I have endeavored to give my own views of it without regard to books, or hearsay evidence, and the treatment was such as appeared to me most rational, and in accordance with the views of my professional brethren, who were most conversant with it.

ART. IV.—*Notes on Typhoid, and Typhus Fevers.* By the EDITOR.*

THE inhabitants of this country, like those of every other of which we have any knowledge, have, from its earliest settlement, been more or less exposed to febrile diseases. In New England these diseases have been chiefly of a typhoid type, though intermittents have occasionally prevailed in some places, from local malarious causes; while, in the Middle, Southern, and Western States, remittents and intermittents, with occasionally yellow fever, have been the principal diseases of this class. From the want of authentic historical records, and the paucity of accurate observations by medical men, we are not able, at this period, to form a very satisfactory judgment as to the precise character of febrile disorders that formerly prevailed, although we can gather from various sources that the inhabitants were liable to a disease resembling our present typhoid fever, and which was variously designated as *long fever*, *slow fever*, *nervous fever*, *putrid fever*, *&c.* It is stated by Dr. Nathan Smith† that there is no instance on record, and that he has never heard of an instance where an aboriginal inhabitant of this country has ever experienced an attack of typhus fever. Whether this exemption really exists, remains for future observation to determine. Dr. Smith informs us that, previous to the year 1767, a fever called *nervous* had prevailed to a considerable extent in a part of New Hampshire, on the Connecticut River, where he was then residing; but that for 28 years afterward it had entirely disappeared, when it again began to be met with; and from that period to the time at which he wrote, 25 years thereafter, he had constantly met with the disease, and could follow its changes from one place to another, and tell where it was prevailing. During this period it spread all over the New England and some of the other States, staying from one to two, or three, or more years in a place, and then ceasing and appearing in another, being apparently uninfluenced by locality, rank, or occupation; affecting equally those living on lofty mountains or the lowest valleys, on the banks of rivers or the borders of lakes and stagnant ponds; attacking alike the poor and the wealthy, the filthy and those more cleanly in their habits. Dr. Miner remarks ("*Essay on Fevers*") that "the exemption from wide-spreading and mortal epidemics (including typhus fever), during the period from the Revolutionary war to about 1805, was so great that many physicians passed the whole term of their practice, and scarcely met with a single well-marked, original *typhoid* disease." Since the disappearance of the *spotted fever* in 1812, typhus has prevailed sporadically, to a greater or less extent, over the whole of New England; assuming, however, a variety of grades and forms, but answering to a common type. It is generally conceded that the synocha of Cullen, the inflammatory continued fever of Copland, is nearly, if not altogether unknown.

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* The substance of the following article, may be found in the Editor's Edition of "Copland's Medical Dictionary," and has been chiefly compiled from a variety of sources. It is copied into the Journal by request.

† [Essay on Typhus Fever, 8vo. New York, 1824.]

It was remarked by Nathan Smith, one of the ablest physicians whom our country has produced, and who practised physic and surgery for 35 years in various parts of New England, that he had never met with a case of simple inflammatory fever, nor any continued fever but *typhus*, unless the simple, unmixed catarrhal fever be of such a character. The great mass of practitioners in New England still continue to designate the prevailing fever of the country by the name of *typhus;* and a majority of them hold with Dr. N. Smith that the disease is a specific one, and propagated by a specific contagion.

The attempt has recently been made to identify the typhus or common fever of New-England with a fever described by Louis, under the name of typhoid fever, in consequence of discovering similar lesions in the follicles of Peyer, as well as from a similarity of symptoms. These anatomical characters appear to have been first distinctly noticed in this country by Dr. E. Hale, who published in the "*Medical Magazine*" (Boston) for December, 1833, an account of three dissections of persons who died of typhus fever. Dr. Gerhard, of Philadelphia, however, called the attention of the profession more particularly to the subject in 1835,* by publishing some cases of fever attended with alteration of these glands. Dr. E. Bartlett gave an account, in the "Medical Magazine" for June, 1835, of the entero-mesenteric alterations in five cases of what he denominates "unequivocal typhoid fever," which alterations correspond exactly with those described by Louis.

The next formal communication on the subject was from Dr. James Jackson, of Boston, who presented to the Massachusetts Medical Society, in June, 1838, an elaborate report on "typhoid fever," in which he remarks that, since he became acquainted with the work of M. Louis, in 1833, he had found that the continued fever of Boston was the same as that which M. L. has described. "The symptoms are essentially the same, and the appearances discovered in the body after death are precisely the same. These appearances had been noticed here before, when the examination was so made as to disclose them. From 1833 our fever has been the same it formerly was, and, in *every case* where an examination has been made, the morbid changes have been found to be the same as described by M. Louis. In neighboring places a similar confirmation of the identity of the disease has been furnished from different quarters."—(*Loc. cit.*) Since the above period, observations have been published by Drs. Hale,* Bigelow, Bowditch, J. B. S. Jackson, Holmes, and Shattuck, of Boston, and by Drs. Gerhard, Jackson, and Stewardson, of Philadelphia, all going to sustain the doctrine of the entire identity of the typhoid fever of Paris and the ordinary continued fever of the United States. An able work also has been published by Dr. E. Bartlett, entitled "*The History, Diagnosis, and Treatment of Typhoid and Typhus Fever, with an Essay on the Diagnosis of Bilious Remittent and of Yellow Fever*" (8vo., p. 393, 1842), in which the same doctrine is supported with much zeal and ability.

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* [American Journal of Medical Sciences for February, 1835.]

Typhoid Fever.—By this term, then, as now employed by most medical writers, is to be understood that form of febrile affection which is attended with lesion of the glands of the ileum (Peyer's glands), and characterized by *meteorism, enlargement of the spleen, rose-colored spots on the abdomen, and sudamina.* It is the disease first described by Petit and Levres, in 1812, under the name of *entero-mesenteric* fever ; by Bretonneau under that of *dothinenterite ;* and by Cruveilhier under that of *follicular enteritis;* by the Germans it is called *abdominal typhus ;* in New England it goes under the name of *typhus fever.* Since the disease was first described in 1812, it has been shown by the researches of MM. Broussais, Bretonneau, Louis, Boillaud, Chomel, Andral, and others, that the disease has anatomical characters, which are nearly constant, and functional lesions which are almost always identical. It is to be regretted that the term *typhoid* has been assigned to this disease, as it is wanted to designate phenomena characterized by prostration and debility attended with more or less stupor, and probably always will be employed for this purpose in time to come. We consider, therefore, the term *abdominal typhus* as much preferable, as its symptoms and general pathological characters so closely resemble the disease described by British and German authors under the name of typhus, that it may be considered as a modified form of the same malady. That it, however, differs in some important features is generally conceded by those who have made themselves accurately acquainted with the minute characters of both. Thus, Dr. E. Hale, of Boston, in 1833,† published a paper on the typhus fever of New-England, in which he maintained that the disease presented phenomena widely different from those laid down by Armstrong and Southwood Smith, as characterizing the typhus fever of Great Britain, and "which," he remarks, "can only be reconciled to them by remote deductions or theoretical speculations. The first deviation of our typhus," he continues, "from that of England consists in the absence of most of the prominent marks of the disease. There is no cold stage followed by heat and excitement, no marked depression of the sensorial functions, and no local affection of any prominence or importance. The symptoms are all or nearly all, negative. The patient feels that he is sick, but is at a loss to know what ails him. He has no headache nor dizziness, and sometimes no consciousness of any loss of mental vigor; no pain in any part; no considerable thirst; the appetite may be lost; at other times it is said to be good, although it appears that little food is taken; but this little is taken with tolerable relish, and there is no loathing of food, and no suffering from indigestion; the bowels are either regular or a little costive; the skin is dry, but not remarkably hot; the pulse is, at first, moderately quickened, and becomes quicker from day to day; the countenance exhibits more unequivocal marks of disease, being heavy, and expressing anxiety and depression; the sleep is generally, but not always disturbed, and the disturbance commonly increases as the disease advances. The patient, if a laboring man, keeps at work for several days, and only perceives that he is more fatigued than usual; if a gentleman, he meets his physician at the door, apologizes for troubling him with so small a matter, and, from day to day, converses pleasantly and cheerfully with him. At length, when he finds that he is truly sick, he wonders that he recovers so slowly; and unless he has previously known his physician well, so as to have the fullest confidence in him, it is a chance if he do not suspect him of unfaithfulness or incompetence for not curing him more rapidly." "This is the slow fever," says Dr. H., "of which we often hear, and which we occasionally see. It continues for a considerable length of time, three or four weeks, acknowledging little respect to remedies of any kind, and in most cases spontaneously but slowly disappears. In some instances, after continuing in this manner for some time, it suddenly assumes more positive symptoms, and hastens to a termination, sometimes favorable, more often fatal. In some rare cases it proceeds slowly to a fatal termination without any great change of character. Such a result is so unfrequent, that we have not often opportunity to ascertain the morbid appearances by dissection. The case of the celebrated Dr. Spurzheim appears to have been of this sort; and in that no morbid change of structure was discovered on examination after death."* Before proceeding to a more particular description of the continued fever of New-England, we shall give a synopsis of the symptoms, pathology, and diagnosis of the typhoid fever of Paris, as laid down by Louis, in order that the reader may be able to institute for himself a comparison between them.

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* [Observations on the Typhoid Fever of New-England, read at the Annual Meeting of the Massachusetts Med. Society, May 29th, 1839, by Enoch Hale, Attending Physician to the Massachusetts General Hospital, 8vo., p. 77. Boston, 1839.]

† Remarks on the typhus fever of this climate (Boston Med. Magazine, vol. ii., p. 301, 1833).

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* [Dr. Spurzheim went on with his lectures for nearly a week after the disease, which proved fatal to him, began; and it was nearly another week before either he himself or his physicians and friends thought it seriously alarming. It went on, however, constantly increasing in severity, but at no time exhibiting any very marked symptoms, except the delirium which came on a few days before his death, or presenting any prominent object for the application of remedies, and he died at the end of about four weeks. On dissection no morbid appearances were discovered which would serve to explain the pathological characters of the disease.]

The mean age of patients attacked by the typhoid affection of Paris was twenty-three years; they were generally persons in good health, and who had resided but a short time in Paris. The predisposing causes were the same as those of other febrile and inflammatory affections. The disease came on generally with a chill of considerable violence, accompanied with trembling, headache, universal feeling of lassitude, anorexy, thirst, some pains in the abdomen, and, in a large majority of cases, liquid dejections supervened upon these symptoms during the first twenty-four hours. To the chills succeeded heat; although they recurred several days in succession in nearly all the subjects, and generally in the evening; afterward the skin was constantly more or less hot, and nearly always dry.

To these other symptoms succeeded, relating to the cerebral functions, the organs of sense, and the abdominal viscera. The patients complained of a peculiar weakness, dizziness, or a dazzling sensation, when rising up and attempting to walk; an inclination to somnolency, so that they readily fell asleep on ceasing conversation; a weakness of memory, and disinclination to intellectual exertion, and an indifference to danger and to what was passing around them. Sleep was imperfect, unrefreshing, and disturbed with dreams. Delirium frequently accompanied the somnolency, but rarely preceded it; sometimes it commenced from two to six days after it; was slight, and only during the night; or more marked and constantly present; occasionally it was so violent as to make it necessary to use corporeal restraint, and, like somnolency, it generally continued until death, except where the disease ran a long time before proving fatal. *Tinnitus aurium* was a frequent symptom, and sometimes connected with deafness, which began later than the other symptoms, and often became total. The eyes were injected, and somewhat smarting; sometimes of a uniform rose tint, though rarely so at the commencement; and one patient had strabismus; many suffered from epistaxis, from which they experienced no relief. The greater number had an eruption of rose-colored lenticular spots on the surface of the body, more or less thickly clustered together; and these eruptions generally made their appearance about the tenth day of the disease, never before the seventh day, and they varied no less in duration than abundance. *Sudamina* were frequently connected with them.

The abdomen was meteorized (tympanitic), and rarely preserved its natural size and form to the end of the disease; in some this meteorism was slight, in others more marked, so that the abdomen projected beyond the line of the chest. As these characteristic symptoms became developed, diarrhœa increased; if much delirium was present, the dejections were involuntary, and often tinged with blood. The tongue, in a large number of cases, presented no unusual appearance, but in general it was gluey or dry, sometimes ruddy or red, at times coated, at others not so, crusted or otherwise, in certain patients blackish, in others more or less thick. It was protruded with difficulty, and with a tremulous motion; deglutition difficult; the back part of the mouth more or less inflamed. Nausea and pain at the epigastrium were not infrequent symptoms, and vomiting also, in the latter stages of the disease. The debility daily increased, the patients stood erect with difficulty, and trembling; walked as if intoxicated; at length took to the bed, in which they lay in the same position, ordinarily upon the back, and were moved about like inanimate substances. Soon the skin over the sacrum became red, excoriated, and gangrenous; blistered surfaces were covered with pus of an offensive odor and had a livid color, and ulcerations of the skin, to a greater or less extent, took place. The *skin* was generally very hot and dry; chills were occasionally felt; the *pulse* was much accelerated, usually above 100 per minute, and small, feeble, contracted, and irregular. In a few it preserved a certain degree of fulness till death. In a majority of cases there was more or less *cough* present, together with a sonorous râle throughout the chest. Towards the close of the disease, the crepitous murmur was often heard over a circumscribed portion of the thoracic surface.

Remarkable changes took place in the countenance in the course of the disease. At first, in a large number, the face was purplish and bloated, which gradually subsided, till there was a total want of expression; at length it became sunken, or there was stupor, or absolute indifference, or the patient appeared absorbed in a profound revery, in violent excitement, or had simply a wildness of look, according to the kind of delirium present. The lips and eyelids were sometimes spasmodically contracted, or the muscles of the jaws, giving an expression of suffering and pain; these spasms were sometimes of long continuance, so that there was subsultus tendinum, or spasmodic motions of the upper extremities, or permanent contraction of the same parts. Death often occurred from perforation of the small intestine; sometimes it took place while the patient was in delirium, or in a kind of calm, the patients having lost their consciousness but a few hours only, and occasionally it took place suddenly.

Such were the phenomena in most cases of the severe typhoid fever, of which M. Louis has given a history. In many patients there was merely present, febrile excitement, with heat of skin, thirst, slight somnolency, and giddiness, with loss of appetite, and moderate depression of strength; diarrhœa and pains in the abdomen were absent, so that the seat of the disease could not easily be indicated. These were what Louis calls latent cases of the disease, which, however, often terminated fatally from perforation of the intestine. The symptoms were extremely varied in different cases, the diarrhœa and meteorism being in some cases the most prominent symptoms; in others, the prostration, delirium, and spasmodic motions giving the disease the characters either of putrid ataxic fever, or an inflammatory one, in which the pulse was full, and the surface florid and hot. The duration of the disease varied from eight to forty days.

On *dissection*, more or less serious lesions of the elliptical patches (Peyer's glands) of the small intestine were always found; and these were more serious, according to the proximity of the patches to the ileocœcal valve, presenting remarkable differences according to the duration of the disease, and accompanied by analogous changes of the corresponding mesenteric glands. The others were frequently diseased, but their lesions were not constant, and differed in some respects only from those which are observed in those who die of other acute diseases.*

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* ["*Anatomical, Pathological, and Therapeutic Researches upon the Disease known under the name of Gastro-Enterite, Putrid, Adynamic, Ataxic, or Typhoid Fever, compared with the most common acute Diseases,*" by P. Charles A. Louis, Translated from the original French by Henry J. Bowditch, M.D., 2 vols. 8vo. Boston, 1836.]

Whatever opinion may exist in the profession as to the practical benefits that are to result from attempts to identify forms of fever existing here with those prevailing in other countries, no one can deny the importance of becoming accurately acquainted with their phenomena, their nature, seat and anatomical characters.

Diagnosis.—The diagnostic symptoms of the affection, according to M. Louis, are epistaxis, rose-colored lenticular spots on the skin, sudamina (when large and numerous), meteorism, a blackish and thickly coated tongue, drowsiness, stupor, extreme debility, when not proportionate to the other symptoms, eschars upon the sacrum, ulceration of the surface where blisters have been applied, spasmodic movements or permanent contractions of the muscles of the different parts of the body; "phenomena," says M. L., "which are very rarely observed, or which do not occur in other acute affections, or which exist in a moderate degree when observed at all. When more or less of these symptoms exist in the same subject, we cannot doubt that he is attacked with the typhoid affection; that the elliptical patches of the ileum are the seat of the lesion which has been described; for if each one of these symptoms is observed occasionally during the course of other acute affections, such is not the fact with a combination of them. There is no difficulty in the diagnosis when all these symptoms coexist, but the most important of them sometimes fail to appear, and a majority exist at a certain period only of the affection" (*loc. cit.*). Dr. E. Bartlett* remarks that "it is hardly possible to confound typhoid fever with any other affection. There is no other, in any considerable degree, resembling it. Chills, more or less severe, repeated or not, accompanied with, or immediately followed by headache, and pains in the back and limbs; these pains subsiding and disappearing in the course of a few days; thirst; heat of skin; acceleration of the pulse, with an evening exacerbation; entire loss of appetite; great muscular debility; dulness and confusion of the intellect, passing gradually into delirium; restlessness; vigilance or somnolence; twitching of the tendons, or picking at imaginary objects; occasional epistaxis; ringing or buzzing in the ears; the appearance of a scattered, rose-colored eruption, principally upon the skin of the chest or abdomen, during the second week; a dry, glutinous, cracked, red, brown, or blackish tongue, protruded with difficulty, and trembling; dark, thick sordes upon the teeth; diarrhœa, the stools thin, watery, and dark, or yellowish, sometimes consisting of blood; tympanitic distension of the abdomen; dulness on percussion over the spleen, and gurgling upon pressure upon the right iliac region; with a dry, sibilant, or sonorous rhonchus over the chest: these symptoms, coming on without any obvious cause, occurring in a person under forty years of age, and referable to no local disease; more or less regularly and successively developed; increasing in severity, and terminating in death at an indefinite period after the eighth day, or gradually subsiding and disappearing, one after another, and giving way to convalescence at an indefinite period after the fifteenth or twentieth day, mark, most clearly and unequivocally, a disease wholly unlike any other. These symptoms are sometimes, during the progress of the disease, and in various degrees of relative severity, all of them present; and in these cases, at any rate there is no possibility of mistaking typhoid fever for any other disease. The diagnosis, independent of the evidence to be derived from the lesions found after death in the fatal cases, is easily and certainly made."—(*Loc. cit.*)

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* [" *The History, Diagnosis, and Treatment of Typhoid and of Typhus Fever,*" &c., by Elisha Bartlett, M.D. 8vo. Phil., 1842.]

Symptoms.—Typhoid fever generally makes its attack in a very insidious manner, more so, perhaps, than any other acute disease whatever. The patient complains of mental and bodily languor, of more or less debility, disinclination to motion, pain in the head, back, or limbs, and a sense of general soreness and fatigue. Its progress has been well described in the above extracts by Drs. Hale and Bartlett. Dr. Nathan Smith, also, says that "the disease attacks in such a gradual manner that we hardly know on what day to fix its commencement;"* and Dr. James Jackson remarks that "there is more difficulty, perhaps, in ascertaining the commencement in cases of typhoid fever than in any other acute diseases."† Chomel, however, states that the access was sudden in seventy-three cases out of one hundred and twelve cases, and in the others there were obscure premonitory symptoms. The first symptom may be a chill, attended by debility and headache, and followed by heat and thirst; or it may be a severe griping pain in the bowels, with tenderness on pressure. A severe and fatal case, which we lately saw in consultation, came on with a severe chill after riding a considerable distance in a snow-storm, the patient having suffered much from the cold. Diarrhœa was, in this case, a very early symptom. Of thirty-three fatal cases cited by Louis, thirty-one had chills; and of forty-five grave cases that recovered, all had chills but three; and of thirty-one mild cases, there were chills in twenty-four; and generally they occurred in the commencement of the disease. The chill, or rigor, is followed by increased heat of skin, varying much in degree; sometimes moderate, and diffused pretty equally over the whole body; at others intense, and unequally distributed. "Sometimes," says Dr. N. Smith, "the head and trunk will be excessively hot, while the extremities are cooler than natural; at others, the extremities will be preternaturally hot, when the body is but moderately so. One cheek will often appear of a deep red color, and be very hot, while the other remains pale and cool: as its color and heat subside, they seem to cross over and affect the opposite cheek in the same manner. This color and heat usually extend so far as to include the ear of the affected side."—(*Loc. cit.*)

The skin is also variously affected in regard to heat and moisture; being sometimes dry through the whole course of the disease, at others covered with profuse sweats, which may be partial or general, and often of an acrid smell. The body, also, emits a peculiar odor, which is of a musty, cadaverous kind, and characteristic of this affection. The pulse ranges from 70 to 140 in a minute; its frequency being proportioned to the severity of the disease. Of cases reported by Dr. Jackson that recovered, the average least frequent pulse was 74, and the average most frequent pulse was 102; while, in fatal cases, the average least frequent pulse was 91, and the average most frequent pulse was 129. Among the fatal cases in the males, the average least frequent pulse was 85, the average most frequent pulse was 124; while among the fatal cases in the females, the average least frequent pulse was 106, and the average most frequent pulse was 138: showing that the pulse is considerably

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* [" A Practical Essay on Typhus Fever," by Nathan Smith, M.D.]

† [Report on the Typhoid Fever, by James Jackson, M.D.]

J White —

more frequent in female than in male patients. The respiration is modified as in other grave diseases, where there is a morbid condition of the brain; and Nathan Smith alludes thus to a peculiarity in the breathing: "After the patient has been some time sick, if the disease proves severe, there is a peculiar whistling sound produced when he breathes through the nose; and when asleep, or lying in a state of coma, the mouth is generally kept open, and the breathing has somewhat of a stertorous sound." Dyspnœa is not unfrequent, where there is much abdominal tympanitis. There is always more or less cough present after the fifth day, and the sputa are small in quantity, sometimes tenacious and colorless, sometimes bloody, and indicating pneumonitis. There is also generally present a dry, sonorous, or sibilant rhonchus, which is very characteristic of the disease; and this, in many cases, is loud, and heard over the whole chest. Occasionally, there is a humid or moist rhonchus. Pain in the head is a very constant symptom; so that out of 87 cases in which the patients recovered, Louis mentions that there was headache in all but three. It generally is one of the first symptoms, and is of a dull, heavy, or throbbing character, first felt in the morning: sometimes intense and acute, occasioning great suffering. Most frequently it occupies the forehead and temples, but often the whole head, and in severe cases its duration is from eight to ten days. The headache is often attended with severe pains in the back and limbs. The state of the mind has already been alluded to. Mental languor, indifference, irritability, forgetfulness, listlessness, or impatience, merging gradually into delirium or stupor, are all met with, and the delirium is severe in proportion to the danger. Statistics prove that this symptom is present in at least 38 cases out of 46 (Louis).

Dr. Bartlett states that he has seen the disease prove fatal in the second week without any delirium; we have never met, however, with such a case, although we have seen much of the disease in New-England, as well as in this State. In many instances it is mild and temporary; but if the patient be carefully watched, especially during the night, or during the febrile paroxysm, it will be found to exist more or less strongly marked. In fatal cases, it generally continues till the patient sinks into coma, or perishes. It is generally low and muttering; the patient appears confused or intoxicated, picks at his bed-clothes, is restless, and in constant motion; or the delirium may be playful and childish, or distinctly monomaniacal. In most cases, by exciting the attention, the patient may be roused from his state of incoherency, and even from that of coma; although he relapses into it immediately when the attention is withdrawn. Dr. N. Smith alludes to this circumstance, and also states that the patient, on recovery, forgets everything that occurred during his sickness. Dr. S. also relates instances where the moral principle seemed to have been affected after recovery; so that persons acquired a propensity to steal, or commit other offences. Louis states that, of 300 cases of typhoid fever, there was but a single one where there remained any morbid condition of the mind after convalescence. The countenance is heavy and stupid, dull, listless, and vacant, expressive of languor, and total indifference and apathy of mind. Where the pain is severe, the expression of features is one of anxiety and distress; in mild cases there is no particular change, but a want of animation and cheerfulness. Somnolence, or drowsiness and stupor, is a symptom rarely absent in the typhoid affection; preceding, or alternating with delirium; persisting, in fatal cases, till it is lost in coma, and appearing early in proportion to the intensity of the disease. Of cases treated in the Massachusetts General Hospital, it occurred in one case in 3·81 of those that died, and one in 7·25 of those that recovered (Jackson). Louis found it present in nine-tenths of his fatal cases, and in one half of those that recovered. Vigilance or prolonged and obstinate watchfulness, interrupted occasionally by a transient slumber, and often associated with delirium, is also a frequent symptom in typhoid fever. The hearing we have generally found impaired from an early period of the disease; and the patient often imagines that he hears sounds and voices that do not exist. *Tinnitus aurium*, or ringing in the ears, is a frequent symptom, especially in the early and middle periods of the disease. The vision is seldom much affected till near the close of life, although it sometimes is false, double, or distorted; and the eyes present a peculiarly heavy, languid appearance, watery, or red from an injection of the conjunctival vessels. The secretions of the eye are generally viscid (causing the eyelids to adhere), accumulate in the angles, dry, and often put on the appearance of scabs. The sensibility to light is sometimes much increased. The sense of taste is dull and perverted, so that nauseous medicines are swallowed without repugnance.

The voluntary motions are unsteady; the tongue is tremulous, when protruded, and there is often more or less *subsultus tendinum*. Dr. Jackson found this symptom present in 1 of 3.36 cases, and in 1 of 10 03 of those that recovered. The muscles of the face are sometimes spasmodically affected, producing contraction; or the diaphragm is affected in a similar manner, causing *hiccough*. Prostration of the muscular strength is an early and strongly-marked symptom of typhoid fever. The voice is altered from the beginning; early in the disease it is usually rather plaintive and small, but as it advances, and more particularly in bad cases, it becomes guttural, and at last truly sepulchral. The patient lies on the back, and is constantly inclined to slide down towards the foot of the bed (Smith). An increase of muscular strength, shown by turning upon the side, is a highly favorable symptom, and often indicates the commencement of convalescence. The abdominal symptoms, or those indicative of an affection of the digestive organs, are perhaps more characteristic of typhoid fever than those already mentioned, and they especially serve to distinguish this form of disease from typhus fever.

As we observed the disease in Connecticut, the tongue was generally covered with a whitish fur in the commencement, which became yellowish as the disease progressed, and gradually changed to a brown, or even black color in some instances, when it would crack and peel off leaving the tongue smooth, dry, and very red. The same process would be repeated the second, and even the third time, in the course of the disease; a circumstance also mentioned by Nathan Smith (*loc. cit.*) In some cases, as Dr. Bartlett has observed, the tongue was but slightly altered in appearance, covered perhaps with a light fur, somewhat inclined to dryness, or to a yellowish cast; or it may be smooth, moderately red, and moist, with a tenacious adhesive matter. Sometimes a brown stripe runs through the middle of the tongue; or it becomes red at its tip and edges; or it is coated with a whitish, aphthous exudation or ulceration, which involves the fauces and the mucous membrane of the mouth generally; or the whole tongue becomes swollen, painful, and tender. The dryness of the mouth and tongue, owing to the deficiency of salivary secretion, occasions a difficulty of protruding the tongue, of swallowing, and other disagreeable sensations; and the lips and teeth are covered with a dark, tenacious sordes, very adhesive. A thick, tough mucus is secreted in the fauces, which is often thrown off in large quantities. The appetite is wholly gone, as well as the power of digesting food; and in their place succeed nausea and vomiting, the matters thrown up consisting of vitiated mucus, or mucus mixed with bile of an unhealthy color and consistence. Diarrhœa is a common symptom in typhoid fever. In all Louis's fatal cases it was present, with the exception of 3; and in 40 fatal cases, it was present on the first day of the disease in 22. Dr. Jackson states that it occurred in more than half his cases, or 1 in 1.77; and of these cases, a much larger proportion died than of those in which this symptom was not present. In mild cases, it is often absent, and makes its appearance in a later period in the disease. Dr. Smith observes that "the latter stage of all severe cases is attended with diarrhœa."*

According to Dr. Hale, diarrhœa is a more frequent symptom in the typhoid fever of Paris than in that of New-England; and this opinion is confirmed by the Report of Dr. Jackson. The stools are liquid, turbid, or of a yellowish or dark-brown color, like new cider; of a fetid, offensive smell; and sometimes contain blood, rarely any mucus. Dr. Smith has truly remarked that the danger of the disease is in proportion to the violence of the diarrhœa; that when the patient has not more than four or five liquid stools in twenty-four hours it is not alarming, as it does not weaken him much; but that if they exceed that number, serious consequences may be apprehended. He adds that he never lost a patient whose bowels continued constipated through the whole course of the disease, nor ever knew a fatal case of it unattended by diarrhœa.

Abdominal pains, generally proportioned in severity and frequency to the diarrhœa, are characteristic symptoms; and with them, *meteorism*, or a tympanitic condition, is a common phenomenon. According to our observation, this is a later symptom in the disease than the others above mentioned; although Dr. Hale remarks that he met with it most frequently in the beginning of the attack. The peristaltic action, as Dr. Smith observes, is sometimes entirely suspended, and flatus rarely passes *per anum.* Emaciation generally goes on gradually, and often becomes extreme where the disease is protracted; but it is not generally very obvious before the end of the second week. The *urine*, at the commencement, is not high-colored, nor does it deposite a sediment; the quantity is somewhat greater than natural, and it often foams, on being voided into a vessel, like new beer. As the disease advances, it becomes more highly colored, and lets fall an abundant sediment towards the close. Epistaxis is a common symptom; and lenticular, rose-colored spots are so frequently observed on the skin as to have received the name of *typhoid eruption.* Dr. Bartlett describes it as a small spot, not a pimple, slightly elevated above the surrounding skin, not always sensible to the touch; about as large in circumference, on an average, as the head of a pin, and of a bright red or rose color; disappearing on pressure, and as suddenly returning when the pressure is removed. This eruption is believed by some to be almost an invariable accompaniament of typhoid fever; and yet Louis found it in 26 out of 36 fatal cases only; Dr. Jackson observed it in but two-thirds of his patients in the Massachusetts General Hospital; and Dr. Hale states that he met with it in 177 out of 197 cases; and he believes the rose-colored spots to be a constant attendant upon the disease. *Sudamina*, or transparent vesicles, were noticed by Dr. H. in 75 cases; and they were present in two-thirds of Louis's cases. They generally occur late in the disease, being seldom seen before the twelfth day, and disappearing after a few days.

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* We lately attended four cases of Typhoid Fever in the village of Geneva, N.Y.; in all but one of which serous diarrhœa was the most prominent and troublesome symptom. It came on gradually, accompanied with much gastric disturbance, tympanitis, frequent, soft pulse, dulness of hearing (and other cerebral symptoms), hot skin, which afterwards became moist, &c. The rose-colored eruption on the chest was noticed in one instance only. The disease in these cases ran a period of from two to three weeks, before decided convalescence was manifested; all recovered under an alterative, and mildly cordial, and supporting course—as camphor, with Dover's powder, Snake-root tea, weak wine whey, blue pill combined with quinine, &c. In one case, a very severe one, frequent embrocations with warm spirits of turpentine over the abdomen were attended with marked beneficial effects. The inhalation of the terebinthinate vapor which filled the room, appeared decidedly useful as a general stimulant.

Anatomical Lesions.—These have been detailed at great length by Louis, Chomel, Hale, and Bartlett. The most striking are those connected with Peyer's glands. There is a diminution in the natural proportion of the fibrin of the blood, and the cavities of the heart often contain whitish fibrinous coagula (Andral and Gavaret). Blood drawn from the veins during life rarely exhibits the buffy coat; and when present, it is generally soft, gelatinous, or infiltrated, and of a greyish or greenish color. Dr. Hale has recorded the results of 33 dissections after death from typhoid fever,* a synopsis of which we present (from the *Am. Jour. Med. Sciences*, vol. xxv., p. 397), as the fullest history of the pathological changes in this disease hitherto given in our country:

"The head was examined in fourteen. There was some effusion of serum in the arachnoid, or pia mater, in ten cases; an increase of bloody points in the cerebrum, with other marks of fulness of the blood-vessels, in four; glands of Pacchioni enlarged in two; and three were healthy. These appearances are not peculiar to this disease, but are found quite as often in many others.

"The passages in the neck were examined only in seven cases. Ulceration of the epiglottis was observed in one case, and ulceration of the tongue in two. In the remaining four all the passages were healthy.

"The state of the lungs was noticed in thirty-one cases. In eighteen they, as well as the pleura, were healthy; in three there was effusion into the cavity of the pleura; in eight, hepatization, more or less, of the lungs, sometimes in one or two small masses; at others extensive: and, in one or two cases, in both lungs; in two the lungs were engorged with blood; in one infiltrated with serum; and in two there was more or less emphysema. The heart was examined in twenty-eight cases. In three there was somewhat more than the usual quantity of serum in the pericardium. The structure of the heart was healthy in all, except rather flaccid in two or three. In about the same number there was a little thickening of the mitral and semilunar valves.

[*To be continued.*]

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* [Remarks on the Pathology of the Typhoid Fever of New-England, as exhibited in its Physical Signs and Anatomical Appearances, by Enoch Hale, M.D., Attending Physician to the Massachusetts General Hospital. Boston, 1839, 8vo., p. 77.]

ART. V.—*On Febrile Caloricity.* By B. DOWLER, M.D., of N. Orleans

To the Editor of the New York Journal of Medicine.

SIR:—In a bibliographical review of my experiments on the above-named subject, in your September number, I recognize a masterly pen, a logical mind, and the initials of a name which, judging from the periodicals of the day, indicate an author who has produced one of the most learned and philosophical works of this age in either hemisphere. I will not be guilty of the affectation of pretending to be insensible to his opinions upon this subject, which he has investigated with so much ability; and, although I certainly have no reason to complain of the manner in which he has spoken of my researches, justice to myself requires that I should say, he has misconceived their import in one respect. I have not said that the temperature of the body in health is always higher in the centre than on the surface; on the contrary, I have shown (so far as several hundred observations made on one person, in eleven consecutive days, can show) that, in the spring of 1844, with an average bed-room temperature of 74°, the body, in bed, at from 4 to 6 A.M., has at every accessible point the same temperature; at least, the variations are so slight as to be wholly unimportant, the averages being,—hand, 98·25°; sole and inner ankle, 98·47°; axilla, 98·4°; popliteal, 97·8°. (See the article "Equal Diffusion of Physiological Caloric, etc.) On leaving the bed, and for some hours after, the calorific fluctuations are in favor of some points upon the surface approximating the centre, as the axilla, which is warmer than the feet; but the hand and urine, at various hours of the day, correspond in a very striking manner: for, although the average heat of the urine is somewhat less, this may be fairly attributed to the method of experimentation—the air, the thermometer, and the glass (a quinine bottle), must be considered absorbing a part of the caloric. I offer the following unpublished tables, illustrating this view, hoping that some one will apply this method to ascertain the temperature of the urine in febrile and other diseases,—a pathological and therapeutic desideratum.

Table showing the temperature of Healthy Urine, with the velocity of its refrigeration, together with the atmospheric heat at the hours of observation, constituting, with the next table, an uninterrupted series of twelve days in the month of June, 1844.

Day.	Hour.	Air.	Urine.	REFRIGERATION IN MINUTES.								
				M. 5	M. 10	M. 15	M. 20	M. 25	M. 30	M. 35	M. 40	M. 45
8	8 A.M.	86°	98°	96°	92°	90°	88°	86°	86°			
—	8 P.M.	82	98	96	94	92	90	89	88			
9	7½ A.M.	80	97	93	88		83½					
—	2 P.M.	94	100	99½	95	94	93	92	91	90	90	
10	5 A.M.	77	97	92		86	84	83	82	80		
—	6 A.M.	79	97½	94	91	90	88	86	84	83	82	82
—	11½ A.M.	86	98	96	94	92	91	90	89	88	87½	86
11	9 A.M.	86	99	96	94	92	90	90	88½	88	87½	86¼
—	2 P.M.	91	100	96	93				89	88	88	
12	6 A.M.	77	98½	93	90	88	86	84	83	82	81	
—	12 M.	80	98									
—	6 P.M.	78	100									
13	6 A.M.	74	98									
—	12 M.	86	100									
—	5 P.M.	92	100									
Mean		83·2	98·6	95·15	92·33	90·5	88·15	87·5	86·72	85·57	86	84·73

Table showing the comparative caloricity of the hand and urine simultaneously in a healthy person for six consecutive days, together with the atmospheric heat at the hours of observation.

	A. M.				P. M.			
Day.	Hour.	Air.	Hand.	Urine.	Hour.	Air.	Hand.	Urine.
14	8½	83¾°	98¾°	98¾°	4½	85°	100°	99°
—	10	89	99	98	8	79	100	97
15	5	76	98	97	4½	84	100	100
—	11	86	99	98½	8½	82	100	98
16	5	82	98	98	2½	88	98	100
—	9	84	98	98	5½	86	100	98
—	11	88	100	100	8½	82	98	97
17	6	78	99	99	6½	86	100	98
18	6	76	98	99	1	90	100	98
19	5	76	98	98	3	79	98	98
20	6	76	98	98	6½	84	100	99
—	10	86	99	98	8	80	100	98
Mean.			99·45	98·5			99·5	98·37

The chemical explanation which S. L. M. offers is ingenious—the best, perhaps, that has been given. Still it is an hypothesis. But the greatest of all discoveries have been made by the hypothetical method. When Newton *conjectured* that gravitation might be an universal law among all the heavenly bodies, " he discovered," as the great French Newton, La Place, justly says, " a law by which the celestial phenomena, in their minutest details, are completely explained." The analytic method should avail itself of the advantages of the synthetic. In our rage for facts, it should not be forgotten, that a happy conjecture may anticipate the blind labors of an age. An hypothesis, though intrinsically true, is of little use until verified by the experimental method. The march *à priori* and the march *à posteriori* are both good.

If we admit, with S. L. M., that new chemical actions take place during life, dissolving the vital affinities, as indicated by offensive odor, etc., and by the disengagement of caloric, much of pathology might receive a plausible explanation. An exaltation of temperature, of only a few degrees, in some of the vital organs of the centres, would probably impair or destroy, in a longer or shorter time, the functions, or structure, of both. In this respect, it may be that the organs differ in their ability to bear an increase of temperature. A very curious fact, in point, seems to have been established very recently by the French *savans*, MM. Blondlat, Bernard, Barreswill, and perhaps others, showing that the peculiar principle of the gastric juice, on which digestion depends, is totally annihilated by a temperature of 104° (Fah.) and over! These researches, accredited by the most sagacious journalists of the day, explain the inability of the patient to digest during acute fevers, and afford presumptive proof that the peculiar vital properties of the blood, albumen, etc., may, as it were, be killed or wounded in like manner. Thus the " *vital affinities*," in some organs, may be *burned out at a temperature comparatively low*. The hints thrown out, in the Essay on Febrile

Caloricity, concerning the probable difference between morbid or febrile caloric and mere physical caloric of the *same temperature*, has not, so far as I know, been alluded to by any writer in the form and manner there stated. Many writers have described different sorts of morbid heat without *characterizing* it by its *temperature*. I translate from Dr. Dance's Medical Clinics, the following abridged passage, not to prove the above statement, but for its importance, without affirming that I can myself recognize these differences as satisfactorily as many others seem to have done :—

> " *Sharp* and *biting* heat is characterized by the singular circumstances of a stinging and troublesome sensation, appreciable by the sick person and by the physician from a prolonged touch upon the palms of the hands, which carry an impression very justly compared by Galen to the pain that smoke produces on the eyes (*ad tactum acutus*). It appears to exist in deep-seated parts ; is never a good augury ; seems to pierce the hand with the finest needles ; remains for some time, causing uneasiness in the explorer's hand. M. Double indicates another species of heat, which he calls *septu*," etc. (P. 376.) Sir John Pringle says, of the Jail or Hospital Fever (Dis. Army, p. 259), that, ' in the beginning, the heat is moderate. In the advanced state, on first touching the skin, it seems inconsiderable ; but, upon feeling the pulse some time, I have been sensible of an uncommon ardor, leaving an unpleasant sensation on my fingers for a few minutes after. The first time I observed this, I referred it to the force of imagination, but I was assured of the reality by repeated experiments, and by the testimony of others, who, without knowing of my observation, had made the same remark.' "

Galen says :—

> " Febrium, quæ a putredine oriuntur, maximum indicium est mordacitas et acrimonia caloris ; quæ perinde ac fumus nares et oculos, sic ipsa erodere tactum videtur. Non statim ea qualitas, admota manu, discernitur, at per moram prædicta caliditatis species effertur ex penitioribus partibus."

Apart from these considerations, the mere mechanical effect of an augmentation of caloric, exceeding that of health 10° to 15°, whether upon the surface or in the centre, must be tremendous upon the molecular arrangement of liquids and solids—cohesion, elasticity, organization, must be modified ; nay, altered. In pathological anatomy, we have no right to assume structural changes that cannot be made palpable to the senses, except, perhaps, in the single instance of calorific agency, because the influence of the latter, in altering every substance in the universe, is either evident to the senses or inferable with very great probability. How different is that pathology which retreats into the depths of the nervous system, beyond the reach of our senses, where all the changes in the nervous substance are assumed—a cataract of words is poured out about sympathy, innervation, nervous fluid, reflex action—but no change can be seen, so far as form, size, color, cohesion, and physical appearances are concerned ! Is it so with caloric—subtle and insidious caloric ? A volume might be filled in answer ; but I will ask the skeptic to witness the progress of a fever of an acute character, attended with much heat upon the surface. After death, let him look upon the skin where the wave of caloric has just passed ; it is discolored by bloody infiltrations, ecchymosed, marbled ; the blood filtrates rapidly, by gravity, all the dependent parts. As this proceeds, a line is sometimes seen running along the sides of the *cadaver* like a water level; below this, cadaveric hyperæmia prevails; as the blood settles down this recedes lower; turn the body on the face, frequently in a few minutes, it becomes almost as black as that of a negro; turn the body on its back again, the tip of the nose and other elevated points become white; the blackness declines; in a word, the blood will flow backwards and forwards, by gravity, through tissues, whose elasticity, cohesion, and vessels have been changed by the expansive power of caloric. Brittleness, softening, vascularity, exudations, infiltrations, solid and liquid depositions might be expected, and are generally found. Our great Ben. Franklin who bowed the loftiest sciences to utilitarian purposes, has proposed a method of rendering meat tender or digestible, by killing the animals used for diet by electricity, asserting that the electric fluid tears and divides the muscular fibres; in other words, it destroys the cohesion of the tissues. Caloric is, according to Dr. Metcalfe, a modification of electricity, and ought to produce the same effects. Persons killed by sunstroke, putrify quickly; the same is universally affirmed of those killed by lightning.

Calorific diseases, when not greatly complicated, afford Rationalists the best examples by which to illustrate their method ' The empirical application of hydropathy, or the cold water cure for all maladies, however hurtful it may be in some, seems to prove that calorific diseases are more common than is commonly supposed, or at least, that cold is useful when the surface is not hot. Is not the centre hotter than natural in such cases? Is it possible that both the centre and surface can be of a lower temperature than normal, and yet bear interminable applications of cold without manifest injury, not to say death? Injury, that the patient himself cannot but know and feel, in despite of theory? In no diseases whatever, has the patient so much thirst, so much central, burning heat, according to his own account, as in those called algid; cholera is an example. The congestive of the south, which a Louisiana senator lately represented, as causing the patient to become "*as cold as a wedge*," is another. With respect to the *cadavera*, in this fever, I now very often hear, that they become extremely hot in a few hours after death. I could give cases, vouched for by the weighty names of Dr. Barton, formerly of New Orleans, at present of Havana, and of Professors Stone and Carpenter of this city. Not long since, in the city of Lafayette, in a fatal case of cholera infantum, in Dr. Zehender's family, in which I attended, the doctor informed me, that his child, for many hours after death, grew hotter; and this is the more remarkable as it occurred in the night, which, in this climate, is fanned by cool breezes even in midsummer.

Hufeland says, "there is but one acute disease—fever;" and lays it down as an axiom that "every fever is indispensably accompanied with an increased generation of *heat*." The Medico-Chirurgical Review dissents from this proposition by stating that "many fevers extinguish life with the heat below par." This may be true of the surface or skin, as in congestive; but who will prove that it holds good of the centre, as the liver, heart, stomach, brain, &c.? *Cold Fever* is a common phrase in the South; it is founded on common sense—is no contradiction, and means *great coldness of the surface*, and *great heat of the centre*. *Inward fever* is a common expression with people who know nothing of theories, and is pathologically correct. In his Prize Essay, Dr. Fownes speaks "of capillary *combustion*,"—"of individuals perishing, to *the very letter burned to death at a low temperature!*"—(*Lancet*, Jan., 1845.)

It was with great reluctance that I used the word *Post-mortem Fever.* "Avoid a new word," says J. Cæsar, "as a rock." "If the new word," says Quintillian, "be well received, small is the glory; if rejected, it raises laughter." Theorists excepted, the whole world mean by fever, a heat, a morbid heat. The præ-mortem and the post-mortem heat mutually illustrate one another. The ghost of the dead Patroclus resembled the living hero, and at the same time differed much: or as Pope makes Homer say,

Alas! how different! yet how like the same!

After much reflection, I am free to say, that the NEOLOGY is just, necessary. Post-mortem Fever differs from the Fever before death, and still more from Physical Caloric, the laws of which are fixed and known, and amenable to mathematical calculation.

Among the curiosities of medical literature, the following meager data should find a place, because they are wholly unsatisfactory in the matter, manner and number of facts, and yet they form the basis of too many deductions. Two illustrious French *Savans*, now no more, MM. Becquerel and Brachet, reported to the Academy of Sciences thirteen pathological cases of temperature, only one of which was a case of fever, and that a complicated one (*fièvre typhoïde compliquée de bronchite*), from which a generalization is drawn by themselves, and adopted by the medical world, showing that the febrile state gives an increase of temperature in the organs of 3° cent., and that in the article of death, the biceps muscle is ½°, and the hand 5° less. (*Comptes Rendus.*)

I regret exceedingly, that I have not the means of making public several hundred histories, constituting probably as many thousand experiments. The two last cases reported in the September number of the *Medical Examiner*, and witnessed by respectable medical men, possess an interest which, if I may judge, no one can question. In the first (Typhoid), for two and a half hours, the epigastrium was at 109°, and yet this was the *minimum* compared with the axilla, rectum, and even with each hypochondrium, which were higher, from 1 to 2½°! In the other case the *præ-mortem caloricity* was 111°, the *post-mortem* 113°! and, in three and a quarter hours, while lying on a board, covered with nothing but a thin muslin shroud, in the night, the cadaver was, when the observations ended, 109°! POST-MORTEM fever has peculiar, nay, very complex laws; it has vortices, beds, foci, oscillating from place to place, sometimes continuing stationary at several points in the centre and at the periphery, both of which may rise and fall together, or the former may constantly decline, and the latter as constantly rise, for an indefinite period, and *vice versâ*, until physical refrigeration comes with its *habeas corpus.* A heat that is morbid post-mortem, and governed by peculiar laws, *deserves* the name of POST-MORTEM FEVER to distinguish it from that occurring before death in the common acceptation of the term.

New Orleans, *October 4th*, 1845.

ART. V.—*Remarks on the Subject of Priority in the Division of the Entire Masseter Muscle; proposed Simultaneous Division of the same and of the Temporal Muscles of one or both sides, and the formation of an Artificial Joint on the Inferior Maxillary, either by a Simple Division of the bone, or by the Exsection of a portion of it; as a Remedy for Immobility of the Jaw.* By JOHN MURRAY CARNOCHAN, M.D., of New York.

To CHARLES A. LEE, M.D., &c.,
Editor of the New York Journal of Medicine.

New York, Dec. 8, 1845.

DEAR SIR,—My friend, Dr. Carnochan, being in Europe at the time of the publication of the first volume of the American edition of "*Velpeau's Operative Surgery*," translated, and with Notes by Professor Mott and myself, it was out of my power to obtain from Dr. C. the details of a remarkable operation which I had understood he had performed some years since in this city, to remedy the "immobility of the lower jaw."

I hasten, therefore, as an act of justice to Dr. Carnochan, to transmit to you the following highly interesting and instructive communication from him, and addressed to me in relation to that subject.

I am, very respectfully, yours,
P. S. TOWNSEND, M.D.

To P. S. TOWNSEND, Esq., M.D., &c.

SIR:—In your translation of the "Médecine Operatoire" of Velpeau, I observe that you insert, in addition to the original article on Tenotomy and Myotomy, a note, in which the credit is given to a gentleman now practising medicine in this city, for having first divided the masseter muscle for that affection which has been termed "Immobility of the Lower Jaw."

I should feel inclined to allow this statement, and the mere matter of priority, to pass unnoticed, although I am in fact entitled, contrary to your statement, to the claim of having been the first to divide that muscle in this affection, five years ago, were it not that the interest and importance of the case I then operated on, appear to merit a detailed account of the treatment adopted by me on that occasion.

In the year 1840, I was consulted by the mother of a girl about 13 years of age, whom, upon examination, I found to be affected with a destruction of the left cheek, extending from the commissure of the lips, to within a line or two of the ascending branch of the lower jaw, and the anterior margin of the masseter muscle. Accompanying this extensive loss of substance of the cheek, was a complete immobility of the lower jaw, by which the upper and lower jaws were kept in close contact; mastication, and even the introduction of solid alimentary materials, being thus prevented, and articulation rendered exceedingly imperfect. This condition of things having existed for several years, the girl was emaciated to a very great degree, owing to defective nutrition, resulting from the scanty and crude nature of the aliments, which alone could be introduced into the stomach. As both she and her parent seemed ready to submit to any operation, which would tend to alleviate her distressing condition, and remove the deformity, I proposed, in the first place, to remedy the immobility of the jaw; and secondly, to repair the loss of substance, by a Taliacotian operation, or by the Indian method of taking a flap from the adjoining healthy parts, and transplanting it to the almost destroyed cheek.

It is in relation to the operation for remedying the immobility of the lower jaw, that I at present wish to call your attention ; and although the case under consideration, from its difficulties, and the total ossification upon one side of the temporo-maxillary articulation, resulted only in amelioration, yet I claim, in the operation I then performed, to have generalized certain surgical principles, and to have been the first, in this or any other country, to divide entirely the masseter muscle for that affection ; as well as to have suggested the formation of an artificial joint, on the anchylosed side, as a justifiable procedure, when the temporo-maxillary articulation remained in its normal state, on the other side.

After having divided the ligamentous, and almost cartilaginous, bridles and adhesions, binding the jaw immovably closed, and applying the screw-lever inserted between the jaws ; after the removal of some teeth, the parts not yielding, I passed a narrow tenotome between the masseter muscle and the ramus of the jaw, and divided subcutaneously, from within outwards, that muscle, hoping that the division of its fibres would facilitate the liberation of the joint. I now applied the screw-lever again, with considerable power, but the jaw still remained immovable. It became almost evident to me now, that the joint, on the side where the ulceration had originally existed, between the glenoid cavity of the temporal bone, and the condyle of the jaw, was anchylosed, or soldered by osseous matter, and that nothing short of fracture or section of the bone would allow the articulation of the other side to play. The hopeless and desperate condition of my young patient induced me to persevere, and before resorting to the *division of the temporal muscle*, towards its insertion at the coronoid process, as a *dernier ressort*, as was my intention, I again applied the lever, and the jaw gave way opposite a groove on the inner side of the bone, which the original ulceration had produced. This having been done, the articulation of the right side being perfect, the mouth could be opened an inch and a half, and the patient was so pleased at the novel sensation of putting her tongue out, and with the idea of having a sight of it, of which she had no previous recollection, that she called for a looking-glass. This result, in appearance, was very well, but a fracture unites like an incision of the soft parts, and for the moment the re-union of the jaws in their fixed position, passed in my mind as the probable result. By the action of the masseter, temporal, and pterygoid muscles of the sound side, and their antagonists, the patient could now move the jaw, and even immediately after the operation had power enough to masticate. I therefore gave her an anodyne, and applied a loose bandage, and left her to study and reflect upon this somewhat complicated case. Before my next visit, the following morning, the successful attempt of the formation of an artificial joint on the femur, where the coxo-femoral articulation had become anchylosed, first performed by Dr. Barton, of Philadelphia, occurred to me, and I made up my mind to apply this principle to the lower jaw. After the first inflammatory symptoms had subsided, I ordered a wedge-shaped piece of wood to be kept several hours at a time between the jaws, to prevent them from closing, and requested the patient to put into action the muscles of the sound side during the intervals of its removal, and to masticate biscuit, or other solid substances, which she could very well do. The patient was not old enough, however, to understand the importance of the motion being kept up, to bring about the end I had in view, that of an artificial joint, and from relaxing her efforts, after being able to masticate and move the jaw for about three weeks, it became evident that the efforts of the healing process were beginning to produce ossific union. To have maintained the mouth in a fixed and open position would have been more inconvenient than to have had the jaws permanently approximated: the indications then became, either to exsect a portion of the lower jaw entirely, so as to insure by loss of substance an artificial joint, or to adjust the jaws in such a way as to prevent further deformity, after the formation of the callus, and at the same time, if possible, to leave an increased space between the alveolar margins for the more easy introduction of food. The condition of the patient not justifying at that time another operation, which, from its nature, would have been tedious and bloody, I determined upon fulfilling the latter indication, and to wait for the improved health and more mature age of the patient, before attempting the formation of an artificial joint by exsection. With these views I allowed the callus to form undisturbedly, and in about six weeks the jaw became immovable in the approximated position, with the amelioration, as a result of the operation, of a slightly increased space having been gained for the introduction of food.

This, then, is the statement of a case which, from the frequency of the "immobility of the lower jaw" in this country, generally originating from the too free mercurial treatment of the febrile diseases, endemic in the Western and Southern States, may not be devoid of interest, and may afford some guidance in the operative procedures, that may be attempted in cases somewhat analogous.

In regard to the train of circumstances which suggested the therapeutic means above resorted to, I shall add a few words. Many years ago, while a pupil of the celebrated Mott, I had seen in his practice, and assisted him in many of these cases of immobility of the jaw, in which he always succeeded so as to restore both the functions of articulation and mastication. In one case, however, which occurred in his practice in 1832, that of a young lady from Louisiana, after putting into play the full power of the screw-lever, and rack-and-pinion-lever, himself and an assistant using simultaneously the two instruments applied between the jaws, the operation had to be abandoned without the least success. After Stromeyer had given the impetus to tenotomy, and proved its utility, in reflecting upon this case last mentioned, it occurred to me, that in those instances, where a free division of the adventitious fibres, and ligamentous bands, had proved insufficient to bring about the liberation of the articulation, the next indication would be, provided there was not an osseous anchylosis at the temporo-maxillary articulation, to divide at a place of election the masseter and temporal muscles of one, or even of both, sides; and I had made up my mind to put these operations into practice, if such a case happened to present itself to me. In my course of lectures on Surgical Anatomy and Operative Surgery, delivered in the winter of 1840, I publicly mentioned these views, and made a dissection of the parts of the lateral regions of the head and face, for the express purpose of demonstrating the practicability and rationality of the section of the masseter and temporal muscles, in this affection of immobility of the lower jaw, *under certain circumstances*. In the same year, the case I have detailed, occurred in my practice, and in the presence of Mr. Eleazar Parmly, Dr. Francis, and other practitioners, now in this city, I made the subcutaneous section of the masseter, in the manner I have above stated. I was, therefore, as far as I know, the FIRST TO SUGGEST THE DIVISION OF THE MASSETER AND TEMPORAL MUSCLES, in the treatment for immobility of the lower jaw, in those cases in which the division of the other abnormal adhesions had proved insufficient, and where there was not a true anchylosis at the temporo-maxillary articulation, or a doubtful diagnosis existed on that point: as well as the first *to put into practice* the division of the masseter muscle, and to suggest, and endeavor to bring about, the formation of an artificial joint, where perfect anchylosis existed on one side, and where the joint of the other side remained natural, and the corresponding muscles retained their normal functions.

The inference to be drawn from the results of this case, which has induced me to mention to you these particulars, and the experiments performed in relation to the re-union of the shafts of the long bones, would lead us to believe, that mere fracture, or section, of the inferior maxilla, even accompanied by repeated and free motion, would be insufficient to produce an artificial joint; and that to fulfil this indication, the entire exsection of a portion of that bone, either towards the angle, or at some other locality, which the nature of the individual case might suggest, would be necessary. The latest, and one of the most distinguished French writers upon Operative Surgery, in speaking on this subject, says, where this affection "est due à une veritable ankylose, alors, l'art ne peut autre chose que pratiquer une voie aux aliments, par l'extraction d'une ou plusieurs dents." So far, then, as authors have heretofore written, therapeutic means have been abandoned where there was an anchylosis, on one or both sides, at the temporo-maxillary articulation.

As I have already mentioned, the mere fact of priority would not have induced me to touch, at this time, upon this subject; yet I consider the details themselves of the above case, from its complexity, and the surgical principles brought into play during its treatment, of some interest, and as likely to have a bearing upon analogous cases, which, from the frequent occurrence in the country of "Immobility of the Lower Jaw," are not unlikely to be offered to the attention of the surgeon.

I have the honor to be, Sir,
Your obedient servant,
New York, Dec. 6th, 1845. JOHN MURRAY CARNOCHAN.

ART. VI.—*Remarks on the treatment of Bilious Colic by copious enemata.*

By J. S. PAIGE, M.D., of Owego, N. Y.

DR. LEE—Dear Sir:

WHEN I made known to you my method of treating bilious, spasmodic or constrictive colic, you were kind enough to express to me your favorable opinion of it, and to offer to extend its publicity by inserting it in your valuable Medical Journal; and believing, as I do, that it may arm the physician with very efficient means of combating this, and perhaps other kindred diseases and also subserve the interests of humanity, I hope no apology may be deemed necessary from me in offering it for publication.

The case which led to my first essay in this mode of treatment occurred in the summer of 1818, when I was called to attend a man age- about 35 years, who was laboring under a very severe attack of bilioud colic. I pursued the routine of treatment usually followed in sucs cases, and called to my aid several reputable practitioners of medicinh as counsel, and after using various cathartic and emetic medicines, bloode letting, opium, a blister on the abdomen, fomentations, general warm-bathing, and oft-repeated enemas for forty-eight hours or more, I found that I had made no progress towards affording my patient even any hope of relief from his almost intolerable condition, when a lucky thought, as it proved to be, came into my mind—that of making a direct application of some degree of pressure upon the constricted portion of the intestine from below, by introducing a large quantity of fluid with a syringe.

I accordingly directed six pints of water, milk, and molasses, which I commenced using with a half-pint syringe,—the largest at my command at the time—and after using almost the whole of the liquid on hand, the patient began to complain of increased pain and pressure at the point of obstruction, and desired me to desist; but when I made known to him my plan of operations, and that this afforded him the only hope of relief, as I believed, he patiently submitted to my wishes to retain the fluid and allow me to make a little firm pressure therewith on the constriction for a few minutes, which I did, and on withdrawing the syringe, I, as well as the patient, had the great satisfaction to find that the object of our most earnest desires was accomplished; for copious discharges of fœcal matter took place in a very short time, and an almost immediate relief was the result, only a considerable degree of tenderness and some fever remaining, which however soon subsided by the use of mild laxatives, diaphoretics,&c.

Two or three weeks afterwards the same individual had another attack of the same disease from his own imprudence. I commenced the treatment by overcoming the obstruction in the same way as at first, which succeeded in a very few minutes in giving relief; three quarts of fluid also were used on this occasion.

The success of this plan in these two cases induced me to *commence* the treatment of similar cases in the same way, and it has been the uniform mode of my treatment ever since (except in one case of a female where delicacy required a short trial of the ordinary means and which were soon successful in that case), and I have never failed in affording speedy relief in any case.

In two cases occurring in another individual, I found it necessary to use six quarts each time before relief was obtained; but I have never found it necessary to introduce more than about three quarts in any case except in the ones last mentioned.

Since the compound syringe has been introduced into use, we are enabled to force liquids into the intestines with more facility than with the common syringe, and therefore whenever it becomes necessary to use large quantities in this way for any purpose we have more efficient means of doing it at our command.

The quantity of fluid to be used in these cases must be measured by the demand of each individual case, and the directions I would give for securing the object in view, are, to introduce on our first arrival at a case of this kind, a quantity of mild liquid, such as warm water, or warm water mixed with molasses, or some mucilaginous fluid slowly and steadily till the obstruction be reached, and then to keep the instrument, in situ, a few minutes, and make a gentle but firm pressure with the liquid upon the constriction, for if this precaution be not observed we may fail of affording the relief we so much desire.

After the bowels are evacuated, and the obstruction overcome, some mild laxative should be given to gently move the bowels, and this will generally finish the work; and for this purpose a dose of olive or castor oil, I suppose, will be as good as anything, unless the disease depended on a derangement of the liver, as is often the case, and then more active medicines should be used at the discretion of the physician.

Some of the considerations which urge me to recommend this mode of treatment are, that relief may be more promptly and surely obtained than by any other method, for although other means may act in time, there must necessarily be some delay, if they be not rejected by vomiting, which usually attends this disease.

Great certainty and promptness, these are strong recommendations in favor of the mechanical treatment, and from what I have seen, I feel very confident that it will succeed in almost all *curable cases*, if seasonably applied, and there is perfect safety also to recommend it, if used with reasonable caution. The use of large injections may serve other valuable purposes—they may be resorted to in removing intestinal concretions, hardened fæces in obstinate constipation, in reducing intussusception of the bowels, perhaps in removing worms in some cases, also in irritated conditions of the mucous membrane, in dysentery or other inflammations, and in some cases of poisons in the bowels.

From the great extent of the digestive and absorbent tube and its many diseases, I think it not improbable that much may be done by large injections as media of conveying medicinal agents where they may be directly applied in the treatment of diseases in that canal.

Nov. 8th, 1845.

ART. VII.—*Remarks on the use of Quinine and Calomel in the Treatment of the Intermittent and Remittent Fevers of the West.* By JOHN ELLIS, M.D., of Grand Rapids, Michigan.

PERHAPS no subject can be of more importance to the Western Practitioner, than the proper treatment of Remittent and Intermittent fevers. In point of frequency, duration, and fatality, they are perhaps unequalled by any other class of diseases in our country. Believing, as I most sincerely do, from observation, that their best treatment is not well understood by the great mass of practitioners at the West, and that by a different treatment from that usually pursued, the number of fatal cases, and the duration of suffering, may be materially lessened, I feel constrained to add my testimony to that already accumulated, in *favor of Quinine in large or febrifuge doses as a specific*, and against the mercurial, drastic, and stimulating treatment, as being uncalled for and too often injurious.

I do not propose to enter into a minute detail of the symptoms or remedial management, only so far as the above remedies are concerned. As far as my observation extends, we have two forms of fevers in this section of country, and a mixed fever, partaking the character of both, which usually occurs late in the fall, and requires a corresponding treatment. By far the most common are our marsh fevers, varying from the mildest intermittent to the severest remittent. Then we have a continued fever similar to the continued or typhoid fever of New England, in which there is an almost entire absence of bilious symptoms, and the principal seat of local irritation appears to be in the small intestines. In our bilious fevers there is usually a remission more or less distinct; but it sometimes occurs only every other morning; it will, however, generally take place, unless the form of the disease has been changed or destroyed by inappropriate treatment.

I propose, in the first place, to notice some of the prejudices which exist here; then the usual treatment which has been pursued in this section; and lastly, the treatment which I have found most successful, illustrated by suitable cases and such remarks as may occur.

There is, in the Western country, a strong prejudice against Eastern practitioners. The general impression is, that they do not understand the diseases of the West; and this prejudice is too often encouraged by illiberal practitioners residing here. The young physician who comes to the West, must expect to meet this prejudice; and fortunate, indeed, will he be, if it does not act as a barrier between him and business for a long time; but if he is well skilled in his profession, he must, and will succeed. He who makes himself acquainted with the accumulating knowledge of our science, and with a good judgment and careful observation, follows rational indications in the treatment of diseases, rather than a certain routine, will meet with success, and success will give him business, whether he be located in New York, Michigan, or China. When I came to this place, two years ago, the usual treatment in the miasmatic fevers, was calomel, as a cathartic; brandy, and quinine; of the latter, one grain, once in two hours, and often continued even during the paroxysm of fever; together with small doses of calomel until the gums were affected, unless the disease sooner yielded. The popular impression is, that there is great danger of sinking during the remission, which can only be averted by the use of brandy and stimulating doses of quinine; and these remedies were accordingly generally resorted to early in the disease. This tendency to sinking I have not seen, except where the severity of the paroxysms has been increased by these very stimulants. Were the destructive use of stimulants confined to the sick chamber, it would be less to be lamented, but their baneful effects are felt throughout every walk of society, and upheld by popular prejudice. "If you would prevent an attack of fever, you must take a little brandy in your water," is a common remark, which is too often even countenanced by medical men, notwithstanding the well established facts that diseases, both endemic and epidemic, attack drinkers of alcohol, in whatever form used, and that strict temperance and cleanliness are the great conservators of health. If water is poor I drink it poor, and do not strive to make it better by disguising its taste by the use of a poisonous adjunct. When I came to this place, I was influenced by the opinion of residents, and treated two or three of my first cases after their peculiar method; the result was, one of my first cases died. Mrs. B. was seized with the premonitory symptoms of fever, and took, of her own accord, a dose of some patent pills, which acted with great severity and rendered her very feeble. Her fever, for two or three days, was without very distinct remissions, but they became more distinct, when I commenced the use of brandy and grain doses of quinine, once in two hours during the remission, together with calomel, ipecac, and opium, in small doses. The quinine, during the remission, seemed to have a good effect, the skin and tongue becoming more moist; but the severity of the paroxysms was increased, as well as the prostration, which continued, notwithstanding the repetition of the dose every hour, and continuing it during the paroxysm, until colliquative discharges from the stomach and bowels came on, and my patient died during a "*sinking turn*," on the ninth day of her disease. I did not succeed in affecting her gums. I believe that stimulants are always injurious and improper in the treatment of these fevers, unless it may be in extreme cases of prostration, where there is danger of reaction not taking place. I have not recommended them in a dozen cases, and am satisfied that, in a majority of these, they have done injury instead of good.

Emetics I never use in these fevers. The irritable state of the stomach and bowels, which I have often seen produced by them in the hands of quacks, has strongly prejudiced me against them, and it is even a question whether cathartics do not often do more harm than good, by increasing the irritability of the stomach and bowels. Certain I am, that I have treated several cases of fever quite as successfully without them, not even disturbing the bowels at all; and in other instances, have subdued the fever, and then, if there was any oppression of the stomach or bowels, have given a mild cathartic with a satisfactory result. I prefer a small dose of calomel or blue pill, followed with oil, or even oil alone, as being mild in their operation, and so time them as to operate towards morning and thus favor a remission. Calomel in small doses to affect the gums, I do not use, having no confidence in it. The disease does not always abate when we get up its specific effect on the system. I believe with those who think that we cannot usually get its effects in those cases, where, if it exercises any control over this and other fevers which are not complicated with local inflammation, we most need it; and when we do get its effects, our patients would get well quite as soon without it. In other words, the mercurial disease is but a symptom that the fever is abating, and not the cause of the abatement.

For the nausea and vomiting which frequently occur, I use ipecac, or ipecac and calomel in minute doses, not to exceed one eighth of a grain each, and rarely fail to quiet the stomach with them. For the diarrhœa and griping which frequently occur in this and other fevers, I more frequently succeed in quieting the bowels with small doses of Fowler's Solution of Arsenic than with any other medicine; from one to three drops once in three or four hours has often relieved, where calomel and opium, ipecac and astringents have failed, even where it approaches a colliquative discharge. But my main dependence is upon *quinine* for bilious fevers (*i. e.*, fevers produced by marsh miasma), and I believe it will control with certainty most, if not every case of the disease, if given at the proper moment, and in *suitable doses*. At all events, I have not failed in a single case, for two seasons past, to control the disease within twenty-four hours from the first dose, where the patient has not tampered with small doses of quinine or other stimulants. In a majority of cases I have witnessed the admirable febrifuge effects of the medicine, soft and slow pulse, free perspiration, and an abatement of the pain in the head, back, and limbs, within a few hours; and with them a termination of the disease. In the remaining cases a slight and final paroxysm has followed. Where there is a remission, I prefer giving quinine during the remission; but where there is none, I give it at a time when it is most likely to occur, viz., early in the morning. The quantity required to subdue the disease in adults, varies from *fifteen* to *twenty-five* grains, according to the severity of the disease, age, and constitution of the patient, and this I either give at once, or in doses of from five to ten grains, and so that the whole quantity is taken within the space of four or five hours. This is followed with a dose of from three to five grains every morning, until the health is restored. Within the last few months I have been more in the habit of giving the above quantity all at one dose, and I am led to prefer this mode, as I have some reason to suppose that a repetition of the dose interferes with the febrifuge effects of the medicine; for when the above quantity has been taken in divided doses, I think I have more frequently noticed unpleasant symptoms, such as deafness, ringing in the ears, and head-ache, than when it has all been taken at once; but these unpleasant symptoms subside with the disease and are of little consequence. May it not be that we are in the habit of repeating this medicine too often; that one dose between the paroxysms is all that is indicated? I have treated intermittents this season exclusively upon this principle, and I think with more than ordinary success. I expect the first dose of from ten to twenty grains to subdue the paroxysms, and continue it in doses of from three to five grains every day or every other day for a few weeks, according to circumstances. There are many advantages resulting from the administration of quinine in large doses in the management of remittents. If given in a case over which it exercises no control, or is injurious, sufficient will be given at once to satisfy the physician, so that he will be less likely to repeat it until irreparable injury is done; whereas, if given in small doses, several weeks may elapse before he can be satisfied. So far as my observation extends, where it seems to exercise any control over the disease when thus employed, it requires from three to twelve days to subdue it; and even in those cases, it augments the severity of the first paroxysms which follow its administration, and thereby increases local congestions, which too frequently gives rise to troublesome sequelæ. But it too often happens that it does not control the disease but increases the severity of the paroxysms, thereby giving rise to local inflammations, or a continued form of fever, or fatal collapse. In large doses, it may be given where there is local congestion or inflammation of particular organs, as the brain, lungs, liver, spleen, or bowels; and I am fully satisfied from observation, that even the stomach itself will tolerate a large dose when it will not a small one; for the usual duration of the remission is from one to six hours, during which time sufficient cannot be given, in small doses, to subdue the following paroxysm, and if there is no remission, or it is given during the paroxysm, it invariably increases the general excitement; and whatever adds to the general excitement, augments local excitement, which is the cause of the irritability of the stomach. I cannot say that a large dose acts as a sedative, but it acts as a *febrifuge*, and overpowers the febrile excitement without increasing it; or, if given during a remission, it often prevents a return of fever;

if it does not, it invariably lessens its severity and shortens its duration, thereby diminishing local disease.

Large doses of quinine do not appear to irritate the stomach, and I cannot say that they quiet it, only as they quiet the general excitement. I have often given it with the happiest effects within two hours from the time when my patients have been vomiting almost everything they took. Where it has excited vomiting, it has usually been the taste which has sickened the patient, and by making it into pills the same patient has been able to take it within fifteen minutes, with impunity. Should a case occur where the stomach would not tolerate it, I would give its equivalent quantity by injection, or by the skin.

When there is local disease accompanying these fevers, sufficient should be given at once to subdue with certainty the fever; and the dose should not be repeated until the local disease has been subdued, unless a return of a distinct paroxysmal fever demands it; for where we give enough at once to subdue the general disease, we remove perhaps the cause of the local affection, or at least disarm an active agent in continuing it; but when I have repeated the dose, it has appeared in several instances to increase the local disease, as in the following cases.

September, 1845.—Mrs. R. was attacked with the ague, accompanied with a diarrhœa; in the course of four or five days her fever assumed the form of a remittent; paroxysms very severe; discharges from her bowels frequent, bloody, mucous, accompanied with much pain. I was called at this stage, and gave her, during a remission, twenty grains of quinine at one dose, which lessened the severity, and shortened the duration of the following paroxysm. The disease of the bowels abated during the following twenty-four hours, at the end of which time, I thought I had not sufficient control over her fever and gave her ten grains more, which evidently increased the disease of her bowels; but it subsided very readily under the use of morphine and ipecac, together with fomentations. In fact I have always found this disease of the bowels very readily subdued after the fever has been "broken" with quinine. I have had cases of fever, the past season, followed by dysentery, preceded by it, and accompanied with it, but have no reason to think that the use of quinine in this manner tends to produce it; but, on the contrary, I have found quinine of great service in relieving it; and it can be given safely in a large dose, where a repetition of small doses would be injurious.

The following cases will, I think, be found interesting, and the first will show the superior efficacy of large doses of this medicine. *Sept. 4th*, 1844.—Called to see Col. H. during the night; the messenger expressed his fears that he would not live until morning. He had been sick for twenty-two or three days with bilious fever. I found upon inquiry that during the first few days there had been distinct remissions. The treatment had been a cathartic dose of calomel at the commencement, followed with small doses of calomel, and one grain of quinine once in two hours, and brandy more or less freely during the remission; and when the fever assumed a continued form, as it did in a few days, the quinine and brandy were given during the twenty-four hours. At the time I saw him, the calomel had been discontinued some days, as it had slightly affected his gums; the quinine and brandy he still took. He was very restless, more or less wandering of the mind, subsultus, burning heat upon the skin, frequent pulse (120), excessive thirst, tongue glossy and dry, mouth and fauces covered with aphthæ, hemorrhage from his gums and bowels, and ulceration about his mouth; a train of symptoms formidable enough. I requested that Dr. Platt might be called in consultation. We gave our patient between twenty-five and thirty grains of quinine within four or five hours, and followed it with six grain doses once in six hours, together with the moderate use of brandy, and allowed him to hold ice in his mouth, for his excessive thirst. Under the above treatment his fever abated in a few hours; his mind and nervous system soon became quiet; the aphthæ disappeared, the ulcerations about his mouth healed, and the hemorrhage from his mouth and bowels abated; and for several days there was every prospect that our patient would recover, when, unexpectedly, a profuse hemorrhage from his bowels came on, and carried him off, doubtless arising from ulcerations which were not controlled by the treatment. Had the above treatment been adopted at any stage of the disease prior to the formation of those ulcerations, I see no reason why the patient would not have recovered; for certainly a more unfavorable stage of the disease could not have been chosen to commence the treatment; and a happier effect from medicine, so far as the general disease was concerned, could not have been desired.

Sept. 1*st*, 1845.—Called to see Mr. L., ten miles from this place, sick with bilious fever nine days. He had been under Thompsonian misrule, had taken one or two lobelia emetics, composition, &c., &c., without end as to quantity. Saw him at night, pulse one hundred and twenty, small, skin and tongue dry, frequent bloody and mucous discharges from his bowels, with much griping; bowels tender, and evidently a good deal of irritation arising from the above drastic and stimulating treatment. I gave him during the night small doses of Fowler's solution; in the morning found his bowels quiet, pulse 105, tongue still dry; gave him twenty grains of quinine in two hours; next day found him with pulse eighty, skin and tongue moist; directed him five grains of quinine every morning; had no return of fever, and speedily recovered.

One word in regard to the continued fever of which I spoke, at the commencement of this communication. I have had several cases of it. They have generally been without any remission; often the pulse not varying three beats during the twenty-four hours. Under a mild and expectant treatment, calculated to allay the irritability of the bowels, convalescence has usually taken place from the ninth to the fourteenth day. I have in two instances tried the effect of quinine in this fever, to satisfy myself whether it would control it or not; and although I gave it in sufficient quantity to control any case of marsh fever of the severity of the cases in which I used it, no benefit was derived in either instance. In one case it did not appear to affect the fever at all, neither increasing nor lessening the frequency of the pulse. A diarrhœa came on soon after, whether the effect of the quinine or not I am not satisfied; and, after continuing two or three days under ordinary treatment, it was relieved by a few small doses of Fowler's solution. Convalescence took place about the ninth day.

In the other case I gave a cathartic, and after its operation gave the quinine. The tongue soon became covered with a thick yellow coating, dry in the centre; skin more dry, and the disease evidently aggravated; whether this resulted from the use of the quinine or the cathartic, I cannot say, but think both were improper, as she had taken a cathartic some days before. The above symptoms abated in a few days, and she became convalescent about the fourteenth day; soon after which, her friends wishing to make certain of a cure, gave her a dose of *composition*, which brought on a relapse, and, after a few days, a slight periodical chill came on. Although the disease did not possess the character of a remittent or bilious fever, still I was led to try the quinine again, and with the same effect as before. In this instance also there was no doubt but that the quinine aggravated the disease. The patient ultimately recovered.

As cold weather approaches, the cause which produces continued fevers, acting upon systems already under the influence of Marsh Miasm, often gives rise to a mixed fever, partaking the character of both, without remissions. So far as I have seen, very little benefit is derived from quinine; but frequently, if often repeated, much injury; but wherever, in these cases, there is a remission, quinine will control the disease. In fact, I consider a remission as conclusive evidence that the system is in a state to tolerate the use of quinine, and it will be seen, by referring to the above cases, that I frequently use it where there is no remission, but I must be satisfied from the history of the case, and present symptoms, that it is a distinct miasmatic remittent fever; then, if its type has been destroyed by drastic cathartics or stimulants, I do not hesitate to use quinine, but not always with equal success, as we have in that case a disease difficult to manage with any treatment.

The above treatment of our bilious remittent fever has now been pursued by Dr. Platt and myself for two seasons, and with uniform success; neither of us having lost a patient under this treatment, where we had charge of them before they had tampered with small doses of quinine. Notwithstanding last season we did the entire business within the circle of our ride for about two weeks, and the greater share of it for several, during the most sickly portion of the year, owing to the ill health of other practitioners. The number of deaths which have occurred during this time under the stimulating treatment has not been small, although several of them have occurred under Thompsonian treatment. Thompsonianism is nearly extinct; very few trust it; and none have this year, up to the time of death. I have rescued several under this treatment from an almost certain fate, and presume others have done the same.

Since writing the above, the following case has occurred. *Oct. 7th*, 1845.—Called to see Mrs. A., on the fourth day of her sickness. She had had an attack of remittent fever, and took, of her own accord, a dose of calomel, which operated with great severity, and left her with a diarrhœa, which continued at the time I saw her. After the operation of her calomel, she commenced the use of quinine, one grain once in one hour and a half, which aggravated her symptoms excessively, producing extreme restlessness, violent headache, &c.; she said she thought it would kill her to continue to take it. I found her as above, pulse 120; partial paralysis of her tongue, which was heavily coated, and began to peel off in the centre, leaving a glossy surface. I directed my attention to relieve the bowels, expecting a remission in the morning, but none occurred; pulse 120; I gave her twenty grains of quinine in the morning; at night her pulse was 95, and she had spent the most comfortable day she had had. The following morning her pulse was 100. Satisfied that the quinine the day before had done good, and thinking I might still derive benefit from it, I gave her ten grains in the morning and ten at night, but derived no benefit from it, and therefore discontinued it. The following morning her pulse was 105; in a few days it increased to 120; tongue peeled off, become dry; bowels tender, but not much pain. Dr. Shepard was called in consultation, and we came to the conclusion to try the quinine again; twenty grains of which were given in two doses, but it evidently aggravated her disease for the time, and we did not repeat it until the stage of collapse, when we resorted to quinine and stimulants, but she died on the 16th day of her disease.

Remarks.—Had her bowels been quieted after the operation of her calomel, and had she taken twenty grains of quinine at the time she commenced taking the grain doses, judging from the effects it produced when I gave it to her, I can see no reason why it would not have checked her disease at once, as the complications were apparently produced by the drastic operation of the calomel and the stimulating doses of quinine. I think all the quinine after the first dose of twenty grains was injurious, and should not have been given; that *that* dose destroyed the miasmatic disease, and that the remaining fever was symptomatic of the local irritation, and that her chance would have been better without any more, although poor enough at best. In conclusion I cannot too strongly recommend in all doubtful and complicated cases, where quinine is to be given, the administration of a single large dose, once for all, and that it be not repeated until the complications are removed. A single suitable dose will prevent a return of paroxysmal fever for several days at least, and if it returns before the local affections are removed, it can be repeated if thought advisable. I repeat that I am fully satisfied that a frequent repetition of small doses aggravates, if it does not even develope subacute local inflammation. I have seen a case of distinct remittent fever, within the last few days, which was treated by a frequent repetition of doses of quinine and brandy, when at the end of thirty-six hours inflammation of the lungs came on and destroyed the patient. In this instance, if the above medicine did not cause the disease, it was evident to all, that when the disease was developed, the above remedies, of which she took several doses, evidently aggravated the complaint, so much that she refused to take them. Even in the stage of collapse, I prefer a large dose once or twice a day to a frequent repetition of small doses, as in the following case:—Called to see Mrs. P. in consultation; she had been sick nearly two weeks with a distinct remittent; she was then in a state of collapse, and had been failing for several hours, and in a whisper told her husband that I had come too late, as she must die. She was taking grain doses of quinine every hour and brandy. I recommended to the attending physician to give her twenty grains of quinine, and then repeat five grain doses once in twelve hours. I saw her husband a few days after, and learned that she commenced improving immediately after taking the first dose.

Grand Rapids (*Mich.*), *Oct.* 20*th*, 1845.

Since writing the above, Dr. Platt has favored me with the following communication:—

"In the year 1832, when I came to the eastern part of this State, the mode of treating the remitting and intermitting fevers was generally to give an emetic at the commencement, followed by a cathartic; during the intermission or remission, one or two grain doses of quinine, often accompanied with brandy, in the same number of hours; the fever continuing from seven to fourteen days; those cases that proved fatal were universally accompanied by organic lesion, mostly confined to the mucous membrane of the stomach and small intestines. I soon became satisfied that emetics and drastic cathartics assisted in bringing on this state of things, as there was, and is still, in our fevers a strong disposition to gastric irritation; the use of emetics was soon abandoned by a majority of the profession. Whether this irritation or inflammation of the mucous membrane is the cause or the effect of the fever, I consider is of little consequence in regard to the treatment. Cathartics, with many small doses of calomel, combined with a diaphoretic, and, during the intermission or remissions, small doses of quinine, so far as I have any knowledge, constituted the treatment of our summer fevers for the last twelve years by a majority of our practitioners throughout the State. What proportion of the cases under this treatment has been fatal I am unable to say; in some locations the number has not been proportionally small. In regard to drastic cathartics, they are, in my opinion, as objectionable as emetics. Cases have come under my observation which have terminated fatally, and that suddenly, by the indiscriminate use by families of Brandreth's Pills, and other like nostrums.

"I was called a few days since to see Mrs. N——, five miles north of this village. I was informed that she had been unwell for several days with pain of the head and chill-fevers, loss of appetite, &c. By the advice of her husband she took six drastic pills; in about three hours she was taken with severe vomiting and purging, with great distress. I saw her in about three hours after these symptoms commenced, and found her pulseless, with coldness of the extremities, and a cold, clammy sweat over the whole body; discharges from the bowels watery, with great tenderness. I applied a mustard cataplasm to the region of the stomach, and gave her fifteen grains of quinine in cold water, which she retained; no more vomiting; and she soon expressed herself as feeling better, more particularly from a sense of exhaustion at the stomach. In one hour from the first I gave her five grains more; she remained feeble for several days, but had no return of fever, or any of the other unpleasant symptoms.

"I have seen like symptoms from the use of drastic cathartics in many cases, causing great gastric irritation; and the repeating of them, if not causing a state of collapse, had been often the means of changing a simple remittent or intermittent into a fever of a continued type, with a dry, red tongue, irritable stomach, diarrhœa, frequent pulse, with a rapid emaciation. Although I am aware that the impression generally prevails, that, in our bilious fevers, repeated cathartics are necessary, if given, they should be of the mildest character, blue mass, castor oil, &c. I have never been satisfied of any beneficial effects of alterative doses of calomel, except in our late autumnal fevers, which often assume a continued form and a typhoid type; in these cases, the salivary and biliary secretions are checked, and the skin is hot and dry. In these, and similar cases, I have given, with the best success, calomel, from one to three grains, combined with ipecac or Dover's powders, every four or six hours, until the secretions were restored.

"Two years since I adopted a different mode of treatment, more particularly in regard to the use of quinine. At the commencement I give a mild cathartic; I prefer blue mass, from eight to ten grains, at evening, followed by castor oil, or sulphate of magnesia, the next morning; during the first perfect intermission or remission, twenty or twenty-five grains of quinine (from five to twenty grains to the dose, according to the urgency of the symptoms). By this treatment, I have now no recollection of ever failing of putting a final check to the fever, even where there has been considerable gastric irritation. I have found, to my no little surprise, that quinine, in the above quantity, instead of increasing, has rather diminished the latter symptoms. I am well satisfied that many of the cases that have lately come under my charge, would, with my former treatment, have been protracted to seven or fourteen days, with much suffering, to say the least. With the use of grain doses of quinine and brandy (the latter I think more injurious than the former, and never should be used except, perhaps, in the stage of collapse), if I have not succeeded in breaking up the paroxysm, I have invariably increased its severity and prolonged its duration; and, by continuing the remedies, I have seen one paroxysm forced upon the heels of the other, creating a fever of a continued type; but, with the use of large doses, if I have not prevented the paroxysm, I have lessened the severity of the fever and shortened its duration; and, from my experience in the use of large doses, I believe them far preferable to small ones in all cases where quinine is indicated.

In regard to its *modus operandi*, I am of the opinion that it has a specific effect in all miasmatic diseases, and mostly so *in large doses;* relieving immediately pain and general restlessness, producing a moist condition of the skin, lessening the frequency of the pulse, and restoring the functions to their normal condition.

July 16th, 1845, I was called to Mr. S——, living fourteen miles from town, who was afflicted with remitting fever. He had been sick when I saw him five days. He had taken at the commencement of the attack twelve grains of calomel, followed by castor oil, and, during the remissions, which lasted about five hours, two powders of quinine, containing about two grains each; every succeeding paroxysm was prolonged, and more severe, accompanied with increased distress. I saw him during the remission; his pulse was 120, and he expressed himself as not able to live through another paroxysm. I immediately gave him six of his powders of quinine combined; I remained with him two hours; his pulse became more full, and numbered 100; skin moist; gave him five grains more, and left him. He has since informed me he had no more fever, and from this time rapidly recovered.

A. Platt.

[To the above valuable communications on the subject of the treatment of our Western Fevers, we subjoin an extract from a letter lately received from a very intelligent young physician, recently returned from a visit to the Western States:—]

Ithaca, December 3, 1845.

"Dear Doctor,—During a professional tour to the South and West this past summer and autumn, I had an opportunity of witnessing both the public and private practice of some of the most talented physicians in that region of country; and their practice so particularly coincides with Dr. Wright's, of the Army, as described in the September number of your Journal, that I am induced to send the details to you, to make such use of as you may think proper. The class of evers indicating the use of quinine and other tonics, has been unusually rife at the Southwest this year, and I may say the treatment has been correspondingly characteristic. I take from my Note Book at the time a summary of twenty-five cases of intermittent fever, all of which were treated with the like favorable result. 1st, Moderate venesection, according to the age and strength of the patient; 2d, Sulphate of quinine (ten to fifteen grains), commencing two hours before the expected recurrence, invariably broke up the pyrexial stage. The quinine was generally suspended after the fourth hour; a cathartic of sub. mur. hyd. was given some twelve hours after the first dose, which never failed to restore healthy biliary secretions. The continuance of small doses, five to eight grains of quinine, for six or seven days, with occasionally a dose of rhubarb and aloes, entirely eradicated the disease. The unpleasant sensation of ringing in the ears, deafness, &c., usually passed off in a few hours, without any untoward results. The exhibition of forty-five grains every two hours, in the severest forms of congestive fever, has caused a sudden subsidence of all the alarming symptoms. Equally successful has been the administration of 1½ grains; sometimes 2½ grains of tartar emetic, in combination with simple syrup, every hour, in seven cases of pneumonia, after the manner of Laennec. We, at the North, cannot have these facts too strongly fixed on our mind, to overcome the prejudices arising from the maladministration of the above article, which often proves more efficacious than the lancet, in judicious hands.

" Yours, very respectfully,
" D. E. Bishop, M.D."

Art. VIII.—*Case of Abscess of the Left Lung; thickening and partial Ulceration of the Pericardium: Adhesion of the Right Lung, and extensive Tubercular Deposition through the entire Pulmonary Structure; with Obscure Diagnosis.* By A. B. Smith, M.D., of Ludlowville, N. Y.

Mr. Editor,—A very interesting article lately appeared in your Journal, by Dr. Swett of New York, illustrative of the difficulty of correct diagnosis in some cases of pulmonary and cardiac affections. Should the following case appear to you to possess sufficient interest, in connection with the same subject, to justify its publication, it is at your disposal.

Campfield Tompkins, æt. 51, was a farmer of good health until about three years since, when, as the family believe, he received an injury by a fall from the scaffolding in a barn.

From that time until April, 1844, the period of his attack with the illness of which he died, he had occasionally, on rising in the morning, attacks of quite severe pain in the left hypochondrium. It, however, lasted but a short time, and left him feeling nearly as well as before, not interfering at all with the business of his vocation.

At the time above noted, while working in the field he was attacked with severe pain in the left hypochondrium (that being the place to which he always pointed as the seat of most of his pain), nausea, pain in the head and fever. Had a very restless night, was considerably worse in the morning. He however attempted to labor again, thinking thereby to get rid of his bad feelings, but he was soon obliged to desist, the symptoms becoming aggravated. Took a cathartic of sulph. magnesia which operated pretty freely, but procured no relief. The following day he called a physician, who gave a cathartic followed with a relaxing diaphoretic; and left orders for the application of a sinapism over the seat of the pain. This removed the most urgent symptoms, but he was by no means convalescent, but from that time until his death, continued, with only transient periods of apparent convalescence, to decline.

From this time until March, 1845, when I first saw him, he had most of the time been under an alterative, anti-phlogistic course of treatment —and often with considerable relief; worn tart. emetic pustulating plasters over the seat of the pain; complained of a tightness and fulness under the right breast, which soon succeeded his first attack, and continued to harass him the remainder of his life.

When I first saw him, he had the following symptoms:—a sallow, rather sunken countenance, tongue slightly coated with a yellow fur; pulse a little accelerated; skin preternaturally warm and dry; pain in the left hypochondrium; tightness and fulness under the right breast; bowels costive; urine scanty and high colored; also at times a slight hacking cough, attended with scanty mucous expectoration. Gave a cathartic, to be followed with blue pill every night, if the bowels did not remain sufficiently soluble, and a solution of tart. emet. and ipecac; the latter to be discontinued when the febrile action subsided. Saw him three days after: sallowness mostly gone, tongue cleaning; no cough; tightness and fulness less frequent and distressing, and bowels regular. He sits up and walks about most of the time.

Prepared a decoction of *polygala senega*, *taraxacum*, *ipecac*, and *rhubarb,* which had no visible effect; did not supersede the use of the laxative pills which we designed it should do. Discontinued this; prescribed *tinct. iodine*, to be taken and applied externally over the seat of the pain, and a pill of *mass. hydrarg.*, *ipecac.* and *ext. taraxacum*;—to be taken every night on going to bed. Under this he appeared to improve, until he caught cold, when we had to discontinue the internal use of iodine, as it disagreed with his stomach and created a fever.

Until a short time previous to this, we had supposed the case to be one of impairment chiefly of the nutritive function, from a general glandular disease, in which the lungs were not seriously implicated, believing their morbid symptoms to be mostly sympathetic, from their mild and intermittent character. But we had to change our opinion somewhat by a closer examination, which revealed to us the following symptoms.—Countenance sunken; pulse sixty and quite feeble; tongue slightly coated with a white fur; slight hacking cough on rising in the morning, with but little and at times no expectoration; tightness and fulness periodical, occurring about half past one P.M., and remaining until about three—attended with some fever; pain in the left hypochondrium, dull and aching, with complete intermissions; but soreness constant and at times exquisite.

The right side of the chest was considerably enlarged, the ribs projecting about twelve lines in front of the sternum, very resonant, with a preternaturally strong respiratory murmur, though otherwise healthy. The left side was much contracted, had no motion on respiration, elicited a dull sound on percussion, and could detect *no* respiratory murmur on the left of the mediastinum. From this we concluded that the left lung was totally impermeable to air, although we could not satisfy ourselves as to the cause. The heart's action was healthy as far as we could determine.

Some three days after this, the patient began more rapidly to decline—was very restless, though in but little pain; most of the time none at all—manifested nothing new, except that the tongue assumed the raw-beef appearance.

Being now certain that no medicine could reach his case, our treatment from that time was only palliative. With a little morphine, &c., he was quite comfortable, and rested pretty well at night. Had no hectic, unless the slight fever attending, or causing the tightness and fulness, might be so called. Had no night sweats or any other colliquative discharge, but continued gradually, and at times almost imperceptibly, to waste away, until the last sands of life had ebbed out.

Autopsy twenty-four hours after death:—Emaciation extreme; no discoloration, or tympanitis.

After opening the chest in the usual way, I commenced the elevation from the right lateral inferior part of the sternum and cartilages, with the following appearances, viz.:—Under the right breast, as low down as the fifth rib, commencing on the cartilage, and extending laterally, was an adhesion of the lung for about thirty lines; which, in addition to the pleura for its bond, had several cartilaginous bands. There were also several incipient tubercles in the inferior margin of the anterior lobe. With these exceptions, the right lung appeared perfectly healthy, had no tubercles, miliary or otherwise, in the summit. I then divided the diaphragm to the left lateral incision, without, however, opening into the left pleural cavity, as it was firmly adherent to the pericardium: the diaphragm was also much thickened. On extending the incision upwards through the mediastinum I found that much thickened, and also firmly adherent to the pericardium; and that again to the costal pleura, through the whole extent of its contact, except where extending ulceration had burrowed in. Through these openings, yellow and not very fœtid pus issued quite freely. Turning the sternum back, we found the left pleural cavity completely occupied with pus, the lung being entirely disorganized, and the bronchi obliterated. We also discovered near the ensiform cartilage, at the right margin of the sternum, a large tubercle imbedded in the pleura in the caseous stage, and two near the superior part of the sternum; one of which was quite small, situated upon the first bone of the sternum, and the other a very large one, being over twelve lines in its lateral diameter, upon the cartilage of the first rib. The *heart* was of the usual size and healthy. Being obliged to hasten the autopsy we made no further examination of the chest.

The stomach and bowels, with their appendages, were healthy, except the mesenteric glands, which had quite large patches of miliary tubercles, with the interspaces healthy. The liver and spleen also contained the caseous tubercle, with, however, no other appearance of disease. In the appearance of the latter we were much disappointed, expecting from the symptoms, evidence of severe disease, the left hypochondrium having been the seat of most of the pain of which he complained. But doubtless this was sympathetic.

The singularity and much of the interest of this case consist in the absence of many, I might say most of the symptoms attendant on such a pathological condition, and the mild and equivocal character of those present. As far as I can learn, he never complained of pain or soreness in the chest (and with a view to detect the latter I have often thoroughly examined him), had no dyspnœa; and never a harassing cough, and but little expectoration; slept perfectly quiet on either side; had no rigors,—or, as I conceive, hectic proper, and no night sweats. The character of the symptoms we will not again enumerate, as they have been sufficiently described.

Now in the light of these facts, the inquiry suggested to my mind, and one that I have not been able yet to satisfy is,—How could inflammation, sufficiently active as to cause hepatization and softening, have thus occurred in this occult manner and without producing more strongly marked symptoms ?

I am sure that had there been an ordinary susceptibility of the system, disease could not have effected such extensive ravages, upon organs playing so important a part in the animal economy, and so essential to life, without having caused the most exquisite suffering, and giving evidence by unequivocal signs and symptoms of the character and extent of the disease. I question seriously whether such extensive disorganization could have thus occurred in any other than a system so devoid of sensibility.

ART. IX.—*Report on the use of Sulphate of Quinine, in Miasmatic Diseases of the South.* By W. H. VAN BUREN, M.D., late of the Medical Staff, U. S. Army, Prosector to the Professor of Surgery, University of the City of New York.

THE following "Report," now published by permission of the Surgeon General of the Army, to whom it was originally made, was furnished in compliance with instructions issued to the Officers of the Medical Staff, in the month of August, 1843.

To those of the profession who are not familiar with the diseases of our southern Country the opinions thus imperfectly set forth may appear extravagant and ill-judged. If success, however, is the test of practice, the Archives of the Surgeon General's Bureau will demonstrate their propriety, endorsed as they are by the approval of a majority of the most experienced army surgeons who served in Florida. As I am no longer one of their number, I may assert without impropriety that to the Medical Corps of the Army belongs the credit of first testing this practice extensively on our continent, and establishing its superiority.

Whether large doses of quinine are as well suited to Miasmatic diseases occurring in the North and West, as at the South, remains to be proved. Of this fact, however, I am convinced, that long exposure to miasmatic poison begets a tolerance of the remedy beyond that possessed by the resident of a healthy district. Since the "Report" was written I have tested the quinine in large doses in numerous instances in the city of Washington, D. C., and its immediate vicinity, and I have found no reason to alter the opinions already expressed. W. H. V. B.

New York, December, 1845.

In answer to your '*Circular*' of the 14th ult., I have the honor to submit the following reply.

My experience in the use of large doses of sulphate of quinine, has been acquired since the commencement of my service in Florida, now more than two years ago. During the whole of this period I have been on duty, and, for the greater part of it, in charge of a command exceeding four companies of U. S. troops. On a rough estimate, I may safely say that I have treated more than 1000 cases of disease of the country up to the present time.

During the first four months of my service in Florida, I was in the habit of using quinine in doses varying from two to twenty grains, according to my judgment at that time. My authority, then, for the use of the medicine in large doses, was the experience of the French Army Surgeons in Africa, and the experiments of M. Piorry and others in Paris in 1838–39. Afterwards, by the experience of Surgeon B. F. Harvey, U. S. Army, I was induced to employ large doses much more generally, and since May, 1841, I have rarely used less than from ten to twenty grains at a dose, when I wished to secure the full and specific effects of the remedy.

I have invariably employed the sulphate of quinine (super-sulphate when in solution), procured from the Medical Purveyors of the Army, and, to the best of my knowledge, it has always been of a good quality.

My present experience in the use of the medicine suggests the following mode of practice, which, since its adoption, I have had no occasion to change; on the contrary, its superiority has been uniformly more strongly confirmed.

In *Simple Intermittents* of every variety I am in the habit of administering 15 to 20 grains of quinine, most generally in solution, from six to twelve hours before the chill is expected; always making allowance, when necessary, for its *anticipation*. In *pure ague and fever*, when the derangement of the nervous system has as yet produced no *visceral* or *glandular* disease, I use no '*preparatory medicines*,' believing that thus far the disease lies wholly in the nervous system,—that other symptoms are but consequences of its irregular action,—and, that 'preparatory medicines,' when not positively indicated, are not only unnecessary, but decidedly injurious.

In about two-thirds of the cases thus treated, I have found it unnecessary to *repeat* the dose in order to effect a cure, and I am unable at present to remember an instance in which a *third* dose has been required. I believe that when the proper moment can be exactly ascertained in which to administer 15 or 20 grains of quinine, one dose will prevent the recurrence of a chill in ninety out of a hundred cases,—and that when the disease is thus cut short on its first attack, it is far less liable to recur at a future period.

In *Remittent Fevers* I am in the habit of combating the paroxysms according to the indications in each case,—rarely by venesection or emetics, most frequently by mercurial cathartics, acidulated drinks, and the *free use of cold water to the surface of the body*. The moment that the skin becomes moist, without particular regard to the state of the pulse, I give from 20 to 25 grains of quinine, according to the severity of the case, the constitution of the patient, and the general type of disease at the time,—and repeat it in from four to eight hours. This treatment will in most cases prevent a return of the paroxysm. The most effectual remedies for *gastric irritability* I have found to be a strong infusion of capsicum, and *ice*, held in the mouth, or swallowed in bulk. It has been necessary, however, to administer the quinine whilst ten or twelve cups were drawing on the abdomen, in order to prevent its rejection by the stomach, and, in other cases, to secure its action by the application of 60 or 80 grains to a blistered surface on the epigastrium. If the doses mentioned above can be retained, and absorbed by the stomach, the fever cannot continue.

In *Malignant Intermittents*,—the '*Fièvres Intermittentes Pernicieuses*,' of Alibert,—the prompt and decided use of the remedy in the same doses, is successful with equal certainty. In these cases, however, it is necessary to keep up its action for a somewhat longer period than in simple remittents.

In what is called "Congestive Fever," which most frequently occurs as a *Malignant Intermittent of one paroxysm*, I have no precise limit to the use of the remedy. Forty grains, if retained and digested by the stomach, will, I believe, secure its full effect for a longer or shorter period; and generally in ten or fifteen hours reaction comes on—if at all. With nerve and decision in the employment of quinine in full doses, in connexion with stimulants (brandy and capsicum), and external stimulants (of which the best are aq. ammonia fort. and the decoction of cantharides in sp. terebinth.), used with the necessary energy and perseverance—I consider this disease—the most severe of an endemic form that occurs in our Southern country—to be perfectly manageable when taken in time by a physician of judgment. Calomel is valuable as a cathartic, and, in certain cases, to allay gastric irritability;—but glysters, especially those of a stimulating character, and if necessary containing quinine, act more rapidly, and in these cases there is rarely time to secure the specific effects of mercury.

In Yellow Fever I regret to say that I have never seen any decided and permanent good effects from the use of quinine—though it was employed in doses of every size in a number of cases at this post, in the autumn of 1841. The trial of the medicine at that time was not decisive—but the results were far from satisfactory. With regard to the pathology of this disease, I have been induced to believe that its *ultimate cause* induces a peculiar action of the liver, which results in a vitiated secretion from this organ, of the character of an animal poison; this, passing into the blood, produces an *alteration of that fluid*, and, as a consequence, of all the secretions, and thus gives rise to the peculiar condition of the nervous system, which characterizes the disease. When the kidneys cease to act, and the *urea* is no longer eliminated from the blood, *it* acts upon the brain as a narcotic poison, as is proved by its effects where the chemical preparation is taken into the stomach. Why may not the elements of the bile, chemically altered, produce an analogous effect? If it were not unconnected with the subject, further evidence might be adduced, which would, I think, give some plausibility to this view of the pathology of Yellow Fever; I have introduced it here to explain, if possible, why quinine does not act as energetically in this as in other forms of fever of a similar character: it is, that the primary seat of the disease in Yellow Fever is the *blood*—and not the nervous system, as in miasmatic diseases—derangement of the nervous system being the *consequence*, and not the *cause* of the disease.

In enlargement of the spleen, as a sequela of Intermittent Fevers, I have never yet failed to effect a cure by large doses of quinine—even in cases where other treatment had failed. The following case will show the mode of its administration.

At Fort King, E. F., in December, 1842, a boy of nine years of age was brought to me, with an enormously enlarged spleen, of eighteen months' duration; he had been under treatment without benefit for some time previously, I presume by the ordinary means. His skin was dry and sallow, appetite depraved, bowels irregular, and spirits entirely gone; no pain on pressure over either liver or spleen. At first sight I thought the boy was dropsical, from the unusual size of his belly, but, on examination, fully one half of the abdominal cavity was found occupied by the spleen, which was hard and well defined in its outlines. I prescribed gr. ss. hydrarg. chlor. mitis. three times a day, which was continued for ten days; at the same time a blister was applied over the spleen, and dressed with sixty grains quin. sulph. pulv., and every other morning twenty-five grains of the same were given internally (in pills of 5 grs. each) at once, for four successive doses; the fifth dose of 25 grs. was given after an interval of three days, and the sixth dose four days later. This was all the medicine used, and at the end of the month the spleen was reduced to its natural size, and the child was in perfect health—and so continues at the present time. The most striking circumstance in this case was, that at no time during the treatment could I detect any *cerebral* symptoms from the quinine; in fact its only evident effect was the diminution of the spleen. Of its mode of action in cases of this kind I can afford no explanation. I have invariably observed that children bear large doses of quinine even better than adults. About this time I gave an infant six weeks old *five grains*, stopping its ague at once, and without a bad symptom.

I have seen M. Piorry, in the Hôpital de la Pitié, at Paris, after marking out the outlines of an enlarged spleen on the skin of the abdomen with lunar caustic, give twenty-five grains of quinine to the patient, and on examination, *two hours afterwards*, assert that he detected a decided diminution in its size. I did not satisfy myself, however, that this was actually the case—perhaps from want of skill in *palpation.*

In *Masked Intermittents*, I am also convinced of the superior utility of large doses of the medicine. Intermittent hemicrania is the most obstinate form of miasmatic disease that I have encountered.

I have used the sulphate of quinine, experimentally, to a limited extent, in other forms of disease besides those enumerated: in chronic hepatitis, epilepsy, amaurosis, and mania,—but without any results of interest. I am prepared to believe, however, that all functional diseases of the nervous system are to some extent under the influence of this medicine, and that it will *cure* any disease of an intermittent character.

I have given twenty grains of quinine on two occasions during *frank, open fever*, with hot skin and excited pulse—when alarmed at its long continuance and fearful that it would result in congestion; in both cases it acted apparently as a *nervous and arterial sedative*, being followed by relaxation of the skin and falling of the pulse to the natural standard.

I have never seen bad effects from the use of large doses of the medicine, in any stage of fever, though I am not prepared to use it indiscriminately where there is cerebral excitement.

In smaller doses, under the same circumstances, I have been repeatedly impressed with the idea that it increased the febrile symptoms, and failed in producing a sedative, or equalizing effect.

I believe that a full dose of quinine is from fifteen to twenty-five grains, according to the impressibility of the patient; and that, as is the case with many other medicines, the effect of a smaller, or fractional dose, is very different from that of a full dose; and that, where the full impression of the remedy is required, it is more economical, as well as more philosophical, and far more likely to be immediately successful, to administer ℈j at once, at the proper time, than gr. ij. every two hours, for three or four days, or longer.

In two instances, after administering grs. xx. of quinine, too late, apparently, to prevent the access of a paroxysm of fever, I have witnessed a singular condition of the system, which seemed like a struggle between the remedy and the disease for mastery over the nervous system; there was great oppression of breathing, restlessness, and nervous depression; trembling and chattering of the teeth, unaccompanied by any sensation of coldness, and suppressed and struggling pulse. In both of these cases—the one a healthy lady with one previous chill, the other a soldier after one paroxysm of simple remittent—the remedy apparently gained the victory after the lapse of half an hour, and no fever followed; from which circumstance I infer that the symptoms enumerated did not constitute a chill. A repetition of the dose was not required in either case, and they both convalesced without a bad symptom.

I have seen one case of *partial loss of hearing* which followed the use of *two grain* doses of quinine for a period of two weeks; one case of tinnitus aurium, of eleven months' standing, now under treatment, and apparently incurable, attributed to the same cause; and I have also under treatment a case of amblyopia, of three weeks' duration, and quite intractable, which followed the use of *four grain doses* every four hours for a week, for malignant intermittent fever, before my arrival at this post.

I have never yet witnessed any of these results from the use of large doses, and, in fact, with the exception of the temporary aggravation of a chronic dysentery, I have never seen any bad effects from them. In dysenteric cases, I attribute the aggravation of the symptoms more to the sulphuric acid of the solution than to the sulphate of quinine; and accordingly use the medicine, when required in such cases, in the form of pills, combined with sulphate of morphine.

With regard to the *modus operandi* of quinine, I believe that in fractional doses (from gr. ss. to gr. xv.), it acts upon the nervous system as a *direct and peculiar stimulant*, with an ultimate paroxysmal effect. In full doses (gr. xv. and upwards), its action varies with the condition of the system; in the dynamic stage of miasmatic fevers my impression is that its immediate action is that of a *sedative;* in the adynamic stage of fevers—or in other words, after the resistance of vitality has been overcome by the cause of the disease, either entirely and permanently, as in congestive fever, or temporarily, as in remittents or intermittents—the action of the remedy in large doses, when it produces any effect, is, uniformly and certainly, to restore a healthy tone to the nervous system, and to *stimulate specifically the powers of life* in the most decided manner. Its effects upon the circulation I believe to be altogether *indirect*—one of the consequences of its *equalizing* influence on the human system,—and this rationale explains in some degree its varying action in different states of the system.

It is possible that the sulphate of quinine may exercise an influence over the circulation, directly, by some peculiar action on the *spleen*—admitting that this organ acts the part of a "governor" to the circulation, or a *diverticulum* by which the distribution of the blood is regulated. This would afford some idea of its mode of action in reducing an enlarged spleen to its natural size.

The action of the sulphate of quinine, and still more of the super-sulphate, seems to be uniformly slightly irritating to the mucous lining of the intestines—more particularly of the colon and rectum. Beyond this I have no evidence of its unfavorable influence, as has been asserted, upon diseases of the bowels. On the contrary it has so happened that since the frequent use of large doses of the medicine, I have encountered fewer and less severe cases of dysentery than formerly.

With regard to the *climate of Florida*, a subject upon which there has been recently much debate, it is my opinion that, by comparison with other sections of our country, it may be considered as ordinarily healthful. Its acute diseases are remarkably uniform in their character, and, as for a large proportion of them, there is fortunately a remedy—one of the most certain in its action that the materia medica can afford. Its long continued heat, the greater comparative coolness of the nights, and the constant humidity of the atmosphere, have a tendency to produce miasmatic fever, diseases of the liver and digestive organs, and to dispose the skin to ulcerations. I have observed also among the older residents an unusual tendency to diseases depending upon the deposit of accidental tissues, especially of a malignant character, such as carcinomatous ulcers and tumors, and fungus hæmatodes,—always, however, excepting scrofula. In this city hydrocele is of remarkably common occurrence—a large proportion of the natives, and old inhabitants, to my knowledge being affected with it. Whether this is the result of local causes, or produced solely by the climate, I am not prepared to say.

The relation between local causes of disease, and epidemic and endemic influences, is as mysterious here as elsewhere.

I have never seen a case of disease of the liver or spleen, which could—on the most remote evidence—be attributed to the use of quinine, either in large or small doses.

Of the qualities of the sulphate of quinine as a *pure tonic in small doses* I have received an unfavorable impression, in the debility following diseases of this climate. Used in this manner I believe that it acts only as a direct and peculiar permanent stimulant, and that it has a greater tendency to induce general irritability of the system than other and more simple vegetable tonics, with a decidedly unpleasant effect in many instances upon the mucous membrane of the intestines, and the brain.

I have never recognized its action upon the liver.

After stopping an intermittent fever by a full dose of quinine, unless the system requires decided support, I am not in the habit generally of administering tonics ; and I have never witnessed more satisfactory cases of prompt and uninterrupted convalescence than while pursuing this plan of practice. In cases which required a supporting treatment, the indigenous tonics of the country—the prunus Virginiana and cornus Florida—have proved to be valuable medicines.

According to my observations the unpleasant effects of quinine, in producing ringing in the ears, &c., &c., are more constant and severe in proportion to the smallness of the dose employed. I have seen many patients excessively annoyed by doses of two grains, frequently repeated, who have afterwards, under similar circumstances, taken twenty grains with comparative impunity. The medicine, in solution, has also a greater tendency to produce these symptoms than in pilular form ; still the solution is more immediate and efficient in its action.

I cannot leave this subject without remarking the striking rarity of organic disease as the result of fevers, &c., in this section of country, in comparison with others, where the same class of diseases prevails.

Dropsies and chronic affections of the liver and spleen are exceedingly rare, taking into consideration the very general prevalence of miasmatic fevers, and acute diseases of the climate.

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I have the honor to remain, &c.,
Wm. H. Van Buren, M.D.,
Asst. Surgeon, U.S.A.

St. Francis Barracks, St. Augustine, E. Fla.,
September 10th, 1842.

Art. X.—*Free Martins.* By G. C. Monell, M.D., Newburgh, Orange County.

[The substance of the following article appeared originally in the first number of that excellent periodical, "*The American Quarterly Journal of Agriculture and Science*," conducted by Drs. E. Emmons, and A. J. Prime, and published at Albany. It has, however, been mostly re-written, at our request, and some additions made, and will commend itself to our readers, as replete with physiological interest.]

When a cow produces two calves, one of them a bull calf, and the other a cow calf, the cow calf is known by the curious name of *Free Martin.* The male becomes in due time a perfect and useful bull, but the female is supposed to be incapable of propagating. This belief is prevalent, not only in this country but elsewhere. An opinion so wide spread and so fully believed, not only by the ignorant and vulgar, but experienced and intelligent cattle breeders, would seem to be worthy of some degree of credit. It certainly merits investigation.

The first point of inquiry, is to determine whether it is an *invariable* rule that free martins will not propagate. In order to ascertain how far this opinion, so generally received, might be correct, I made careful inquiries among many who were engaged in rearing cattle, and also examined such journals and books as would be likely to furnish information on the subject.

It soon appeared beyond a reasonable doubt, that free martins *were not necessarily barren;* yet as a general rule, subject to a few exceptions, they will not breed.

A gentleman residing in Buffalo, and well known to many agriculturists throughout the state, informed me that he reared a free martin on his own farm, and that she afterwards calved. This animal is still living, and is on the farm of L. F. Allen, Black Rock. An English gentleman informed me of another instance in England, which occurred under his own observation. The heifer died of disease, and on examination after death was found to be pregnant.

Two cases of free martins propagating are recorded, and a third related on hearsay evidence in the American Agriculturist, Vol. III., No. 3, March, 1844, by Joseph Cope, of Pennsylvania. An anonymous writer in the Farmers' Magazine, for November, 1806, describes a free martin, belonging to Mr. Buchan of Killingtringham, which had a calf, and proved to be a good milker. Another writer in the same Magazine for November, 1807, raised a free martin, which bore when two years old a fine male calf.

These are the only free martins I can ascertain on sufficient evidence to have propagated, while there is abundant evidence, equally good, of a very considerable number which had been faithfully tried and proved barren.

It would hence appear, that the rule is, singular as it may seem, that the female twin is unfruitful, yet in a few rare instances she is capable of breeding.

It becomes then an inquiry both of physiological curiosity and practical value, to ascertain upon what the barrenness depends, and whether the fruitfulness or un-fruitfulness of the calf may be known in early life.

It is established with tolerable certainty that the free martin, when incapable of propagating, is anatomically deficient, or deformed in some of the organs of generation. Some of these defects, or deformities, very plainly, and with a great degree of uniformity, modify her external form and appearance; occasionally, however, the external form resembles other cows. The former (and it would seem the majority are of this description) are, so far as I know, *Hermaphrodites;* they are coarse and masculine in structure, and in the head and horns especially bear a very marked resemblance to the ox; the teats are smaller than is usual in the heifer; the *external* appearance of the vagina is the same as in heifers before bearing; they manifest no sexual desires.

Some of these distinctions are not developed, of course, until the heifer has arrived at the age of bearing; the appearance of the head and horns, however, is developed in very early life.

The *internal* structure of the free martin is marked by still greater differences, and these observe but little uniformity.

The first, and so far as I know, the only scientific investigation, of this subject, was made by the distinguished and accurate anatomist, John Hunter.* He examined three of these free martins, and found in them

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* Since the above was written, Professor Emmons of Albany has communicated the results of a dissection made by him. The following is his account as recorded in the American Quarterly Journal of Agriculture and Science, vol. ii., p. 306.

Dissection.—The parts disclosed on dissection, were about one-fourth the ordinary size of those in the well-formed female. The ovaries were white and fatty: an incision exhibited imperfectly their glandular structure. Two small round bodies, similar to graafian vesicles, were seen in the body of the right ovary. We do not say that these were perfect graafian vesicles, but only that there were two round reddish bodies of the size of a small pea, and readily distinguishable from the enveloping tissue. In one side of the animal, the ovary was kidney-shaped, and an inch and a half in length; in the other side, there were two ovary-like bodies of about the same size and form. The fallopian tubes were obscure, and appeared more like ligamentous bodies than usual. The uterus did not appear to be one continuous body. At the point which answers to the fundus, or at the insertion of the horns of the uterus, were two oval or rather cylindrical bodies an inch and a half in length, which came in contact at the bifurcation: these were partially interrupted as they passed down to form the body of the uterus, but assumed their size and cylindrical shape again after about an inch, and passed down parallel with each other, thus forming the body of the organ. A septum passed across their termination, and formed what appeared to be two orifices into the uterus; but this septum finally terminated in the upper part of the vagina, and in fact only a minute orifice existed at what is termed the os uteri, an orifice which scarcely admitted a crowquill. An inch and a half below the os uteri, a thin fibrous membrane extended across the vagina, forming a complete *cul de sac;* the superior cavity diminishing from a diameter just admitting the finger, until it terminated in a point at the os uteri; while the lower division of the canal admitted the introduction of two fingers with ease, all a greater or less deviation from the normal structure of the female. The subjoined is a description of one of them.*

> "Mr. Arbuthnot's free martin, seven years old. The external parts were rather smaller than in the cow. The vagina passed on as in the cow, to the opening of the urethra, and then it began to contract into a small canal which passed on to the division of the uterus into two horns, each horn passed along the edge of the broad ligament, laterally toward the *ovaria*.
>
> "At the termination of these horns were placed both the *ovaria* and the *testicles*. Both were nearly of the same size, which was about as large as a small nutmeg. To the ovaria I could not find any fallopian tube.
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> "To the testicles were *vasa deferentia*, but they were imperfect. The left one did not come near the testicle; the right one only came close to it, but did not terminate in the body called the *epididymis*. They were both pervious and opened into the vagina near the opening of the urethra.
>
> "On the posterior surface of the bladder, or between the uterus and the bladder, near the two bags called *vesiculæ seminales* in the male, but each smaller than they are in the bull, the ducts opened along with the vasa deferentia. This animal then had a mixture of all the parts, but all of them were imperfect."

Mr. Hunter also states that in external form they bore a marked resemblance to the ox. Mr. Hunter was also of the opinion that free martins never exhibit sexual propensities; Mr. Allnutt makes the same statement.† This however is not the case, for it is now well established that they sometimes manifest the usual passions. Free martins are not always like those examined by Mr. Hunter; they are not necessarily hermaphrodites. About a year since, I examined a free martin of this description, reared by Frederick J. Betts, Esq., of this place (Newburgh). She was about three years old, and in external form and appearance presented nothing different from other cows. She manifested the sexual propensities, even to a greater degree than usual; indeed she was almost constantly in season; yet she never became pregnant, although faithfully tried.

In the structure of the internal organs of generation, there was no mixture of male parts, but a very marked departure from the natural structure of the female.

The *vagina* externally presented the usual appearance of a heifer which had never borne a calf. It passed on, as in the heifer examined by Mr. Hunter, to the opening of the urethra, when it began to contract into a small canal, which passed on for six inches, where it terminated in a closed sac, one inch from the mouth of the uterus.

The *uterus* was perfect in its structure, but exceedingly small.

The *ovaries* were small, corresponding in size to the womb; their texture presented no marked difference from the ovaries of other virgin cows.

The *fallopian tubes*, were also perfect, but likewise small. The womb and appendages, in fact, very nearly resembled the same parts in a calf

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as far as the membranous partition. Near the termination of the vagina externally, there was a large mass of fatty cellular membrane, in which were enveloped four oval bodies of a glandular structure, which might possibly be called testicles: these were each supplied with a short straight tube, about three-fourths of an inch in length, and one-fourth of an inch in diameter, which opened directly into the vagina. No such bodies are found in the cow in the normal state, and here we consider them analogous to testicles in the male, but undeveloped: this opinion rests on their glandular structure. From this dissection, the relation of the animal to its sex will be understood without comment.—(*For Woodcut see p.* 88.)

* Philosophical Transactions, vol. lxix., p. 289.

† London Medical Gazette, July 2d, 1836.

of a few weeks old. The following estimate of the size and weight of the vagina, uterus, &c., of a cow, a calf, and the free martin referred to above, will exhibit the extent of the deficiency in size, &c.

Cow, after two years old.—Length of vagina, fourteen to twenty inches; circumference about eight inches. Length of uterus twelve inches; circumference one and a half inch. Weight of the whole, from one to two pounds.

Calf four weeks old.—Length of the vagina six inches, circumference two and one-eighth inches. Length of uterus two and a half inches, circumference five-eighths of an inch. Weight of the whole, one ounce.

Free Martin.—Length of the vagina eight inches, circumference near the mouth, two inches, circumference at the middle, five-eighths of an inch. Length of the womb, two and three-quarter inches, circumference three-fourths of an inch. Weight of the whole, one and three-quarter ounces.

In taking the length of the womb, I measured from the os uteri to the extremity of one of the horns.

I recently examined another free martin; it was however but four weeks old, and it was difficult to determine some points with the same exactness as in the first instance. The *uterus* was nearly if not quite natural, the *ovaries* were also perfect, and each ovary had, as accurately as could be determined in so small a specimen, a *perfect* fallopian tube. The *testicles*, as in Mr. Hunter's case, were situated near the extremity of the horns, a little below the ovaries; the *vasa deferentia* were perfect, opening into the vagina. The *vagina* tapered from the urethra, down to a very small capacity, but continued pervious through its whole extent.

From these dissections it would appear that there are considerable differences in the internal structure of the organs of generation in these singular animals. Generally, they are hermaphrodites; *rarely* they are distinctly female, but deficient in some organization necessary to reproduction; still more rarely they may be females perfect in all their parts.

The first variety, the hermaphrodites, are more or less masculine in appearance, and manifest no desire for the male; they will work like the ox, as I have known in this county. This variety, so far as I can learn, *never breed.* It is worthy of notice that the Romans called their barren cows *tauræ*, as if they had something of the bull about them; but it is not stated that these tauræ were free martins, and it might not be exactly correct to say they were, although the supposition is not improbable. Columella* speaks of "*tauræ* which occupy the place of fertile cows, and should be sent away." Varro† also calls the barren cow *taura.*

The second variety of free martins resembles, as far as I can learn, other cows externally, being feminine in appearance and exhibiting the usual sexual propensities. Those belonging to this class do *not breed*, but I know of no external mark by which these may be distinguished from the third variety or the fruitful. In all which have yet been examined, however, it will be observed that there was some deficiency in the size of the vagina, which perhaps might be considered an external mark, as it could be determined before death.

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* Lib. vi., cap. 22.

† De Re Rustica, Lib. ii., cap. 5.

A free martin calf then, which resembles a male in external appearance, and especially about the head, may safely be condemned as unfruitful; and even if she is not masculine in appearance, she may still, in nine cases out of ten, be condemned as equally useless for breeding.

If these conclusions are correct, they afford a most singular anomaly to the usual order of generation. Why twin heifers or twin bulls should be fruitful, and a free martin barren, is utterly inexplicable upon any known or supposable principle of physiology. Yet, strange as it may appear, observation would seem to establish the fact as a general rule, and we are obliged to admit it, notwithstanding our unbelief and its apparent inconsistency. The subject is well worthy of further investigation, and farmers having free martins born on their farms would confer an especial favor upon many others, if they would have them carefully examined, after death, by some person acquainted with the natural structure of the organs of generation. It is not necessary to keep the animal until grown, if this is not convenient, as the organization of the parts can be sufficiently seen in the youngest calf.

There have been instances of the cow producing three and even four calves at one birth; but there is, I believe, no mention in these cases of the procreative power of the female. I examined one cow whose womb contained *four* calves; all of them were females, finely formed, well developed, and bearing a close resemblance to each other. In each of these calves the organs of generation were perfect; and had the calves been born and reared, there was no anatomical reason why they should not all have proved good breeders.

I also met with two heifers which were barren. In one there was a fibrous plug, closing the mouth of the womb, and which, according to the prevalent opinion of generation, would necessarily prevent impregnation.

In the other, the womb had two mouths, instead of one. Yet this does not necessarily cause unfruitfulness, for I subsequently dissected a cow whose womb contained a calf, and yet had two mouths.

It has been a question, whether human females born twin with males are also barren. Sir Everard Home* seems to infer they are, but more recent investigations have established beyond a doubt that the human female is not affected in her organs of generation, by being born twin with a male; such are, accordingly, as fruitful when married, as women who are not twins.

Mr. Cribb† mentions seven women born co-twin with males, and of these six had a family, and one had not. Dr. J. Y. Simpson traced the history of 113 females of this description; 103 of these had a family: of the male co-twins in the same cases (the 103), fifty-three became fathers, thirty-two remained unmarried, and two married but had no children. Dr. Simpson also traced the history of four married triplets and in each of these the female had a family. There is also a case recorded‡ of quadruplets—three males and one female; the female became the mother of *triplets*.

This defect then in the organs of generation would seem to be peculiar to the cow; I cannot ascertain that the female twin of other animals is barren; the sheep and other *domestic* animals are certainly fertile. The free martin cow stands alone, as it were, and it is to be hoped some more fortunate or accurate observer may determine some uniform rule, if not the reason, for so singular an exception to the laws of nature.

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* Philosophical Transactions for 1799, and Lect. on Comp, Anat., London, 1823

† London Medical Repository, 1823. ‡ Ibid., 1827.

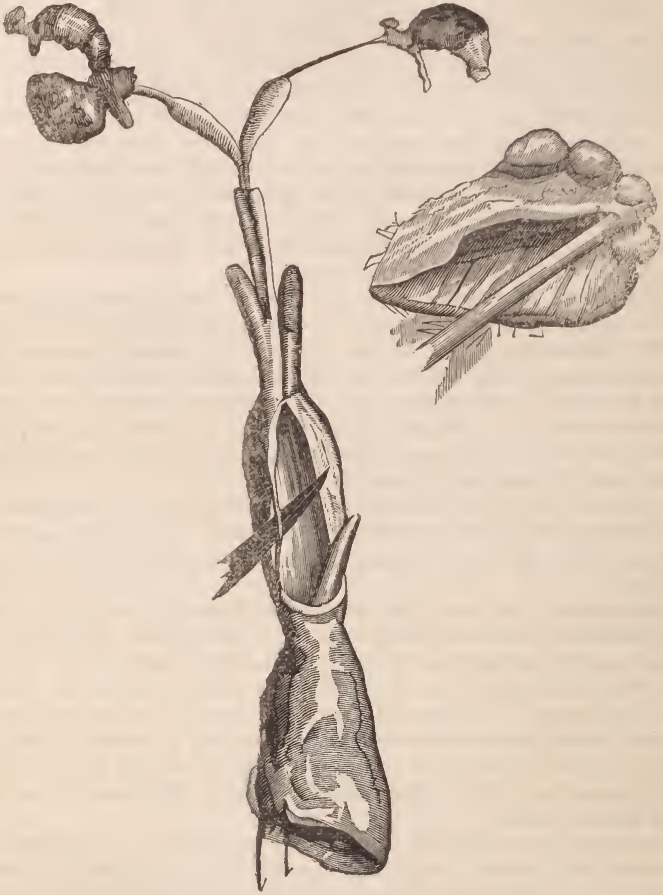

Fig. 1 represents the connections of the organs; the ovaries, fallopian tubes, vagina, much smaller than usual.

Fig. 2 represents the glandular bodies, with ducts opening into the vagina.

EXPLANATION OF THE PLATE.—(*See Frontispiece.*)

Fig. 1 represents the natural appearance of the vagina, womb, and ovaries, as they appear externally, when removed from the body.

a. is the external view of the vagina.
b. represents the situation of the mouth of the womb, which is fully exposed in fig. 2.
cc. are the ovaries.
ee. are the horns of the womb.

Fig. 2 represents the same parts, with *a.* the vagina, slit open to show *b.* the mouth of the womb.
cc. the ovaries.
d. the urethra opening into the vagina.
ee. the horns of the womb.

Fig. 3 represents the same organs, as found in the Free Martin belonging to Mr. Betts; the vagina being laid open to show its extent and termination, an inch beyond. The mouth the womb is represented by the dotted lines *b.*

PART SECOND.

Critical Analysis.

Art. XI.—1. *A Practical Treatise on the Diseases of the Skin, &c.* By S. Plumbe. Philadelphia: 1838. pp. 400.

2. *A Practical and Theoretical Treatise on the Diagnosis, Pathology and Treatment of the Diseases of the Skin, &c.* By Erasmus Wilson. Philadelphia: 1843. pp. 364.

3. *A Synopsis of the Symptoms, Diagnosis and Treatment of the more common and important of the Diseases of the Skin, with sixty colored figures.* By N. Worcester, M.D., Professor, &c. Philadelphia: 1845. pp. 292.

4. *A Manual of the Diseases of the Skin.* From the French of Messrs. Cazenave and Schedel; with Notes and Additions by Thomas H. Burgess, M.D; revised and corrected, with additional Notes, by H. D. Bulkley, M.D., Lecturer on Diseases of the Skin, &c., &c. New York: J. & H. G. Langley. 1846. pp. 340.

Among the many volumes on all the branches of medical science which are constantly issuing from the press, Dermatology has not been forgotten, and the last few years have furnished several valuable contributions to its study. The four volumes, whose titles we have placed at the head of this article, are candidates for the favor of the student in this country, and all are good, though in different ways and degree; and we learn that the great work of Rayer, the standard authority on the diseases of the cutaneous system, is about to be published, in an English dress, by the indefatigable Lea & Co., of Philadelphia. There will then be no lack of treatises, both concise and diffuse, from which the history of this interesting class of maladies may be thoroughly and scientifically acquired, and less excuse will exist than formerly did for the very general ignorance which prevails respecting them. The term which is devoted to medical lectures in our colleges, and the vast extent of subjects which it is of paramount necessity therein to discuss, will serve as a sufficient, if not a satisfactory, excuse for the truth of the statement made by Dr. Worcester; and which, so far as we know, applies to the medical colleges of this city* and Philadelphia, that "cutaneous diseases can scarcely be said to form a part of the professional education of students, in the annual courses of medical lectures in this country. It is believed that, in many of our medical institutions, not a single lecture is given upon the nature, classification and treatment of this interesting class of diseases." So much the greater need, then, did there exist for the appearance of the volumes which it gives us pleasure to chronicle.

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* The Spring course of lectures, at the College of Physicians and Surgeons, has happily, for some years past, supplied this deficiency.

Of these, the first two are the most elaborate ; the third is, as its name imports, a mere synopsis ; and the fourth is a concise and portable manual, which, without pretension to bibliographical research, or ingenuity of theory, is, perhaps, in accuracy and utility, not inferior to the rest. Excluding from his treatise the consideration of small-pox, measles and scarlatina, as being symptoms merely of a constitutional disease ; erysipelas, burns, and the effects of frost, and the malignant pustule of the plague, the treatise of Plumbe, upon most of the subjects which it embraces, is extended. To acne, he devotes, of a large octavo of 400 pages, thirteen pages ; to lupus, seventeen ; to porrigo, twenty ; and so on ; but in most of the articles, or more properly chapters, which are devoted to diseases of more than ordinary interest, he has eked out his own somewhat scanty text with quotations in the form of notes, of immense length, extending, in many instances, over several pages, sometimes copied from Willan, oftener from Rayer, and often so interpolated with the work, as to render the source from which they are derived obscure. To us, this doubling of authorship, and printing of another man's book *pari passu* with one's own, appears a most objectionable practice. Eighty pages at least of the book are occupied in this way, and the note on eczema, which is translated frem Rayer, occupies no less *than fifteen pages of sixty lines each !*—of his own, he gives six ! Divested of this bulk of borrowed material, Mr. Plumbe's portion of the work sinks into a very small compass indeed. Mr. Plumbe rejects the Willanean classification ; but he retains the nomenclature for the most part. His own he founds " on due consideration of the anatomy and physiological functions of the skin, and the influence of certain conditions of the constitution, in giving origin to them" (p. 40). Thus, we have " Section 1, on diseases which obtain their distinguishing characteristics from, or originate in, local peculiarities of the skin." It would be very difficult, by this classification, to diagnosticate acne from sycosis, lupus, and porrigo, which are included in the section, as compared with the facility given to the discrimination of the dermatoses, by the admirable, but to Mr. P., objectionable and fundamentally defective classification of Willan. Mr. P. is a clever but conceited man ; he fancies that his system " simplifies " the study of the subject, and is very sensitive to criticism upon any of his dogmata, which, on this and many other points, are numerous. We do not like his book generally, its style is offensive ; but we acknowledge with pleasure that in description it is accurate and sufficient ; that it is based upon a " due consideration of the anatomy and physiology of the tissue ;" that it displays learning and research ; and that, to the treatment of cutaneous affections, it is a more than commonly useful guide. This is a part of his subject, to which Mr. P. has paid especial attention, and making due allowance for his hobby, as to their constitutional causes, which he rides well, and we will not say whether too fast or too far,* we do not hesitate to say, that the manner in which he has treated it, renders his book particularly valuable to the practitioner. We conscientiously believe that were the views of Plumbe to be generally acted upon, the intractability of cutaneous diseases to remedies would be materially abated.

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* As a specimen of his theory, take the following passage ; he is speaking of Porrigo :—" The cutaneous disease is one of the Protean results which follow various deviations from health, in the actions of internal organs."—(p. 105.)

The Treatise by Wilson, heralded by his lectures published in the "Lancet," was looked for with anxiety. As the work of one who had made the diseases of the skin a peculiar study, and who purposed to devote to its mature study the residue of his life; as containing a new classification resting upon anatomy and physiology, which was to simplify their diagnosis and treatment; expectation was naturally much excited, nor can we say that the appearance of the work has disappointed it.

Without any great pretensions to learning, or to be a work of reference, it is evidently the work of one who is familiar with the literature of his subject. It is extremely minute, accurate and comprehensive, though concise; the treatment, though succinctly, is amply indicated; and the work will fairly contest with that of Rayer, the merit of being the best on the subject which we possess. For its learning and extent, however, the latter will probably long remain without a rival. Preserving, very properly, with very few exceptions, the nomenclature of Willan, Dr. W. divides the subject,—first, into the diseases of the dermis: second, into those of the sudoriparous glands; third, into those of the sebaceous glands; and fourth, into those of the hair and follicles. Those of the dermis, resulting from inflammation, he subdivides into congestive (specific and nonspecific), effusive (asthenic and sthenic), suppurative, depositive, squamous, and from parasitic animals. Other subdivisions of dermoid diseases are those which depend upon hypertrophy of the papillæ, disorders of the vascular tissues, disordered sensibility, and disordered chromatogenous function. This last is subdivided into alterations, augmentations and diminutions of pigment, and disorder of chemical coloration.

The diseases of the sudoriparous glands are those of augmented, diminished and altered secretion; those of the sebaceous glands are similarly divided, and a class is also made dependent on retention of secretion, the duct being either closed or open, and a class depending on their being in a state of inflammation. Diseases of the hair-follicles, are those of augmented formation, diminished formation, alteration of color, diseases of the hair-pulps and follicles, and abnormal direction. That this classification is really based upon the anatomical and physiological facts which are now generally admitted respecting the tissues involved in diseases, and as such leads to a more accurate knowledge of their pathological states than can be attained from an arrangement derived solely from a consideration of external appearances, must be allowed. But the great and incontestable advantage thus gained in a scientific, is lost in a practical point of view, as no guide is given to the genus of any particular affection, such as is afforded by the classification of Willan, the nomenclature established by whom, Dr. Wilson has wisely retained. That the system of Wilson, meritorious as it really is, is faultless, even he does not venture to assert, and the fact that the difficulty of attaining to perfection in this department of cutaneous pathology is almost, if not quite, insuperable, is abundantly proved by the objections to which it is liable. With all its faults, the Willanean system will continue, we suspect, to maintain its favor in the minds of all who seek for facility and accuracy of diagnosis; and this once attained, the pathological nature of the disease may be assigned at leisure, and according to the judgment of each. If it is perfectly true that rubeola, scarlatina, variola, varicella, and vaccinia, are congestive and specific inflammations of the dermis, no guide is further furnished, to the particular pathology of each, to the particular parts involved in the inflammation, nor to the cause of their characteristic differences, as belonging to the same natural order; while to say, according to Willan, that variola and vaccinia are pustules, while varicella is vesicular, and rubeola and scarlatina, exanthemata, though it does not affirm, neither does it deny, their title to be considered as congestive and specific inflammations of component parts of the dermis. We looked, after writing this, to see in what part of the dermis was located the seat of variola, which could not, we supposed, be the same as that of the exanthemata proper, and find it stated that it is "an acute inflammation of the tegumentary investment *of the entire body*, both cutaneous and mucous;" a very inaccurate mode, certainly, of conveying the idea that no part of such tegumentary investment is necessarily exempt from being the seat of its development. The same definition is applied, with more propriety, but even then, not with rigorous adherence to logical accuracy, to the eruptions called measles and scarlatina. The propriety of considering sudamina, like eczema, as a sthenic effusive inflammation of the skin, may be doubted, as also the propriety of making a class of squamous inflammations. Surely, an inflammation leading to the formation of epithelic desquamation must involve in itself some of the characters to which the other classes may lay claim, or else the class should be separated from the inflammations of the "dermis" proper. The same objection in part applies to considering scabies as an inflammation arising from parasitic animalcules,—a definition which well assigns its causes, but leaves its nature unexplained; and the placing of nævus and *purpura* in the same category, as *disorders of the vascular tissues*, seems not wholly unexceptionable. Hyperæsthesia and pruritus are said to be diseases of disordered sensibility. Are they strictly dermoid *diseases?* Are pigmentary nævi solely augmentations of pigment? Is the oxide of silver stain a disease of the dermis? But, with these and other trifling blemishes, the classification proposed by Wilson is a sound and able one; a natural one, founded on anatomy and physiology, the surest basis, and leading to correct pathological views; but as leading to an easy and correct diagnosis, we maintain it to be inferior to its celebrated predecessor, the Willanean. To say the very least, Wilson's is an excellent book, and no medical library is complete without it. It contains, let us merely add, an excellent chapter on the anatomy and physiology of the skin, which is deficient in the three other volumes under review, but which seems to us indispensable to a just understanding of its pathology.

The synopsis of Dr. Worcester is a large and handsome octavo. The paper is good—the typography excellent, though it is liable perhaps, to the objection of offering a meander of type through a meadow of margin. It has the honor, we believe, of being the first original American contribution to Dermatology, and as such is entitled to credit and respect. It contains a very well written introduction of fourteen pages on the history, classification, diagnosis, prognosis, causes and treatment of cutaneous diseases, followed by a short sketch of all that it is most important to indicate in the history of each particular affection, the exanthemata being, for a sufficient reason, excluded. Dr. Worcester, we are glad to find, agrees fully with us in our estimate of the comparative merits of the Willanean and Wilsonian, the "artificial and natural" systems, considered in reference to their practical utility. Dr. W. adopts the former, with this difference only: he groups the vesiculæ, bullæ and pustulæ under the head of *moist*, and the remaining five orders under that of the *dry* diseases; and we agree with Dr. W. both in the objections which are evident to this arrangement, and in his estimate of its utility in the diagnosis.

That a "concise and accurate treatise, in our language, upon cutaneous diseases, *illustrated by well-executed plates*," at a price within the means of all, has long been needed, is certainly true. The design, a highly creditable one, of Dr. W.'s synopsis was to supply this want. That he has given us "a correct description of the more common forms of these affections," with a method of treatment, &c., sufficient for ordinary purposes, in a very cheap and handsome form—no one acquainted with the book will attempt to deny. That his are the *best plates accessible for the price*, we also willingly concede. The trumpery pages with separated sections, each containing groups of forms of cutaneous diseases, affixed to Gregory's Practice and Plumbe's Treatise, are of little or no value. The latter, as a work of art, is not without merit, but it is too limited to be useful, and some of the figures are unintelligible even with the assistance of the description. The plates of Thompson and Willis, both very indifferent, can only be imported at a considerable expense. The ponderous folio of Alibert, with all its elaborate embellishments, its Madonna-like damsels, with flowing tresses and wreathed draperies, its sunburnt curly-haired shepherd swains and sturdy peasants, its chubby-cheeked, fat-limbed babes, and Belisarius-like old men, with wrinkled fronts and snowy hair, its fineness of execution and skilful coloring, is admirably calculated to excite surprise and admiration, not less at the work itself, than at the diseases which it depicts; but it cannot be considered as a faithful copy of the plates of the great book of Nature, which he professed to study, rather than those of the Greeks and Romans. The plates are not faithful representations of the cutanei, and the huge book itself is seen only in the libraries of a few of those who can afford to gratify a taste for the beauties of art and the curiosities of literature, at the sacrifice of truth and utility. The smaller and more recent work, in two volumes, illustrated by small lithographic plates, is not more deserving, and has never been translated. Of Rayer's numerous and admirable illustrations of the cutanei, the only ones which really approach nature in any useful degree, it is impossible to speak too highly; but even when the Philadelphia edition shall be accessible, its price will still render it to many, a sealed book. We come then to the work of Dr. Worcester, and while we recognize its comparative merit and usefulness, we regret that we can afford to it as a work of art, only a qualified praise.

The illustrations consist of sixty-two figures, of good size, drawn on stone, and colored, and exhibit most of the diseases of the dermoid tissue; they are for the most part copied from Rayer's Atlas, and any one acquainted with that work will immediately perceive the resemblance. They are of unequal merit. On the whole, the author has been rather unfortunate both in the artist and colorist. The lithography is coarse, and the drawing often bad. The plates of eczema on the first page are good; the herpes zoster and circinnatus are failures, and the scabies neither exhibits the characteristic acumination of the vesicles, nor the shape nor color of the pustules. The acne rosacea on the second page is a coarse and exaggerated, but otherwise a faithful copy; the sycosis, though coarse, is very fair; the rupia good, and the scabies purulenta, though exaggerated in size and coloring, respectable. The pemphigoid bullæ lack transparency, and the acne (figs. 12, 13, 14,) is quite unintelligible. The next plate (favus and impetigo) is really a very good one, except that the impetigo figurata looks more like a slough of, than a scab upon the skin. The magnified acarus folliculorum is copied from Wilson. The ecthyma (except the brown scabs on fig. 28) is unfaithful. The vulgare resembles more psoriasis, and the small pustules of the cachecticum are not characteristic. The urticaria (31) is miserable. The roseola, urticaria (30), and the erythema annularis (except the drawing of fig. 30), are good illustrations of the affections they are meant to display. The next plate (lichen and prurigo) is also very good, except the psoriasis (one of the most difficult diseases, by the way, to delineate), which, the guttata particularly, could scarcely be recognized, but for the appended name. The sixth plate (psoriasis palmaris, lepra capitis, and vulgaris, lupus and molluscum) is a very good one. The copying is faithful, the drawing good, but the engraving coarse and black. The ichthyosis, vascular nævus and alopecia of the beard on the seventh plate, are good. The elephantiasis of the face is of less merit; the end of the nose and lips are curious specimens of red and blue fancy coloring; the spots of purpura urticans remind one of sugar plums in a confectioner's window, and are unmeaning; the little blackened head stained by nitrate of silver, is a good copy of the original, but we think misplaced in an elementary work on cutaneous *diseases*, and occupying space which might have been better filled. The last plate (the syphilides) is the best; it is neatly executed, the pustular particularly, and characteristic. The papular S., however, is too small and looks like pustules; the roseolar, indistinct.

We have thus carefully examined the work, and while we repeat our conviction that the book is a very useful one, and the plates the best that can be got for the price, and calculated to assist the student considerably in making a diagnosis, they are not *first rate;* and we cannot but regret, for the credit of American art, and on the ground that the great merit of the work was intended to consist in the good execution of the plates, that a little more care had not been employed in the selection of the artist, and a little more attention to minute accuracy in the copying displayed. That it supplies a much-felt deficiency we cheerfully acknowledge, and when in a second edition, which we trust it will reach, this hint shall have been attended to, it will be all that the author intended, and all that the student could desire. For the sake of the illustrations, we regret that the exanthemata were excluded from the volume; many very useful figures might be added, and the perfectly accurate and very beautiful plates now in course of publication by Ricord, will, when completed, afford many further valuable examples of the syphilides for a future edition.* We thank our author sincerely for the service he has rendered to Dermatology, and wish his volume all the success which his zeal and industry, and its own intrinsic merits deserve.

The work of Cazenave and Schedel, which we now come to notice, is a translation from the third French edition, by Dr. Burgess, of London, to which many valuable notes have been added by Dr. Bulkley of this city. The book has been twice before presented to the American public, and ranks as an established favorite. It embodies the results of the long experience and accurate observations of the late celebrated Biett, of the Hosp. St. Louis, and combines according to the capable judgment of the annotator, faithful and graphic descriptions of the diseases, and sound principles for their treatment. This opinion from one who has long made the study of cutaneous diseases a speciality, well known among us to possess a knowledge of the subject vastly superior to that of any of his cotemporaries, coupled with the fact that it was selected by him for republication in preference to others, the newer work of Gibert *inter alias*, is a sufficient guarantee for its excellence. The diseases are arranged in a clear and methodical manner, the style is simple and concise, and so completely have the different subjects been treated of, that little in the way of addition remained to the translator, except that of an article on glanders and farcy omitted in the original, and the embodiment of a few practical facts worthy of notice, in the form of notes. These the editor of the present volume has increased by numerous additions, chiefly relating to the treatment of the cutanei, which in the original is, it must be confessed, noticed in rather a general and cursory manner. The latter also has corrected some errors, which had doubtless escaped Dr. Burgess's observation, and restored several passages of the original which he had thought proper to omit. Thus is formed a very neatly printed, portable and complete "Manual of the Diseases of the Skin," than which no other is probably more worthy of the notice of the student as a companion to some more elaborate treatise on the subject. We ought to add that to the work is appended a very valuable formulary of the principal remedies employed by M. Biett at the Hosp. St. Louis, to which the names of the diseases to which each is best adapted are attached. In the introduction, the authors state that they have adopted the excellent classification of Willan, with a few alterations of locality introduced by Biett : and they have added in accordance with his arrangement, seven additional orders, embracing some cutaneous diseases (lupus, pellagra, malum alepporum, syphilida, purpura, elephantiasis, cheloidea), which could not be comprised under the eight principal orders. "We often find," they say, "many different elementary lesions co-existing, especially in acute cases," and they remark that examples of true retrocession are very rare. The febrile disorder, on the occurrence of which the chronic affection of the skin disappears and is said in common parlance to have "struck in" upon some internal organ and caused febrile disturbance, has existed long before the disappearance of the cutaneous disorder, and the latter returns slowly, long after the complete restoration of the internal parts to a state of health.

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* Of these, as far as they go, Dr. W. has evidently made use. Cazenave too, we may add, en passant, has recently put forth a splendid work upon siphilides.

They caution us too, against exaggerating the influence of the connection between the diseases of the skin and irritations of the gastro-intestinal mucous membrane. Diseases arising from this sympathy are "very rare;" in the majority of cases this membrane is perfectly healthy. This opinion; coming from French pathologists, indicates a return to a sounder and less exclusive etiology than has for some time past characterized their school. The authors most justly observe that "in diagnosis consists the entire study of the diseases of the skin." "*The chief point is to determine the elementary lesion.*" This done, we have merely to compare the disease with the few which possess the same elementary characters. It is in aiding us to do this, that the classification of Willan offers such immeasurably superior advantages, as to lead us to the belief that no other can ever supersede it in the mind of the practical physician. We wish we had space to introduce the very just and useful observations of the authors on this important topic. Let us add that even when the diagnosis of the case is rendered obscure by the substitution of the secondary or consecutive lesions (incrustations, scabs and ulcerations), there will be found, in the great majority of cases, some remains of the elementary lesion perfectly unchanged in the neighborhood of the affected part. "We regard," says Messrs. C. & S., "as an unfounded prejudice, what certain authors say respecting the retrocession of itch, and the numberless ills which they pretend that the unseasonable cure of this disease inflicts upon mankind. Such reveries we leave to Hahnemann and his credulous followers." This is the language of common sense and honesty, which the latter, in their but too successful attempts to impose upon the ignorance and gullibility of mankind, appear to have wholly abandoned. Would that "mankind" could be made aware of the utter instability of the basis upon which this preposterous system rests; a system which has revived in a thousand thousand ways, the false facts which have ever been the opprobrium of medicine; which leads to a system of practice the most inefficient, dangerous and indefensible, either by proof or argument: not a principle in which is not false, nor a theory substantiable; the dogmata of which are equally in defiance of reason, evidence and medical science. But alas! in matters connected with medicine, the public has ever courted deception, and "qui vult decipi—decipiatur!"

The sketches of the prognosis and treatment of the cutanei, though brief, are excellent, but we have not room to transfer them, however imperfectly. Of arsenic they say, "we are prepared to assert, and there is experience to support us, that arsenic, when properly administered, is an *heroic* remedy in the treatment of cutaneous disease; and we furthermore can affirm, that we have seen patients, months and years after having undergone a course of this medicine, who never experienced the slightest inconvenience from it."

Dr. Bulkley has perfected the article on erythema, by two useful notes relating to the forms of this disease. Chronic erythema, he tells us, has two forms, the one produced by external irritation, the other connected with internal causes, and generally symptomatic of some derangement of the digestive organs. On the subject of this sympathy, Dr. B. rather differs from his authors, who, as before shown, estimate it rather lightly relatively to the etiology of the cutanei. Dr. Bulkley, on the other hand, attaches to it much importance, and attends much to the treatment of the digestive organs in his patients, as may be seen by reference to the notes upon pp. 24, 40, 84, 100, 117, 146, 157, 169, 181, 201, 5, 11, 28, 31, and 320 of the volume. The state of the catamenial secretion in females he also considers as deserving of strict attention; and like Plumbe, he evidently considers the general quite as necessary as the local treatment of skin diseases. We doubt not that the combination of the two is the safer course. Erythema nasi, a common and most troublesome affection, is, he tells us, often called *erysipelas* of the nose. This term is in common parlance constantly employed to designate various eruptions characterized by diffused redness, and we regret to say that many ill-informed physicians countenance the error. In the treatment of the chafing of children, &c. (E. *Intertrigo*), he mentions the recommendation by

Dr. A. T Thomson, when the discharge is fætid, of the chlor. soda. solution (La Barraque's), ʒij. to ℥j. to ℥v. of water, or a weak creosote ointment. For this remedy Dr. B. has an evident predilection, for we find it advised in several other parts of the book. Ranking says that he has found equal parts of finely powdered magnesia, or flour, and the nitrate of bismuth, invaluable in the intertrigo of children, *the sore nipples of nurses*, and superficial burns. The curious variety of erythema called *acrodynia*, which occurred epidemically in Paris in 1828–9, is briefly but accurately described by the authors. In notes on erysipelas (pp. 36 and 38), Dr. B. draws attention to the fact that Velpeau considers the *festooned* edge as its pathognomonic sign, and to his use of the sulph. ferri sol. or ointment, as a topical remedy. On the subject of scarlatina (Note on p. 53) Dr. B. records the expressed opinion of Dr. G. Bird, that he had never known dropsy follow in those cases in which *warm baths were employed as soon as desquamation commenced.* Upon the subject of the treatment of eczema, one of the most frequent and troublesome (both to patient and physician) of the cutanei met with in practice, Dr. B. has given us several useful notes. He commends the continued use of the liq. potass (gts. x. to ʒ ss.) in some preparation of the rumex acutus, sarsa, or taraxacum, or a combination of these: a resort to sulphur springs (Virginia, Avon, Sharon, Richfield), Donovan's liq., oiled silk, in this and other chronic affections of the skin, and solutions of alum (ʒ s. ʒ ij. to oj. water). He remarks that eczema of the scalp in children is often a very troublesome and obstinate affection, not unfrequently continuing during the whole period of first dentition (Note on p. 84), to which we would add, and breaking out afresh repeatedly in all its intensity, when apparently cured, without any appreciable cause. Attention to the diet of the child and nurse, the tepid bath, emollient applications, washing with warm water, or a decoct. of wheat bran, attention to the stomach, bowels, and gums, and the cautious use of weak ointments of ox. zinc, citrine ointment, *creosote* ointment, to parts only of the head at a time, weak lotions of carb. potass.: in some cases of eczema of the scalp and ears in scrofulous children, tonics are very useful, where the mucous membrane of the stomach and bowels will bear them. Dr. B. has seen the most decided benefit from the iod. ferri.

In a note on scabies we are furnished with the following recipe used at the St. Louis, by Emery. ℞ brown soap ℥j., table salt ℥ss., alcohol ʒj., vinegar ʒij., chlor. lime ʒss., M. It is said to cause no irritation, not to soil the clothes, to leave no unpleasant smell, to be cheap, and to cure quickly. On the subject of vaccination, Dr. B. gives us in a note some of the most important of the conclusions embodied in the report of the committee on vaccination of the French Acad. des Sciences, made Feb. 25th, 1845. One of these is that, in ordinary periods, re-vaccination should be practised after fourteen years; but sooner during an epidemic. Dr. B. refers, for much interesting information, to the valuable essay by the late lamented Dr. Forry (v. N. Y. Jour. of Med. and Col. Sci., Sept., 1844, which is the publication of his Boylston Prize Essay); and we would add that the work of Wilson is particularly copious and instructive on this subject. According to the latter, to be perfect, the lymph, among other conditions, must be procured from a vesicle which has passed regularly through its course, and be taken between the fifth and eighth days. He thinks also (apparently) that more than one incision should be made, and one vesicle at least, in the person from whom the lymph is procured, should have been permitted to remain unbroken and uninjured, till the period of the natural fall of the scab. When the whole of these (his) conditions are complete, vaccination is perfect, and (then only) the person so vaccinated may be regarded as protected against small-pox. He advocates re-vaccination; and thinks that the undoubted occurrence of small-pox after vaccination, proves nothing unfavorable to the claims of vaccination. On the subject of vaccinia, variolo-vaccinia, re-vaccination, retro and variolo-vaccination, &c., Mr. W.'s treatise is full, explicit and instructive. We regret that in neither of these volumes, we can observe any observations respecting the subsequent bad effects of this simple and beautiful prophylactic practice (one of the greatest boons from the Creator to his creatures), so confidently believed by the people to depend upon the introduction of "bad matter," than which, a greater fallacy, we believe, has never occupied the public mind, and which it behooves the profession assiduously to eradicate, rather than to foster and propagate, as by the ignorant and prejudiced among it, is too often done. In acne rosacea, as well as in acne simplex, Dr. Bulkley has derived benefit from the use of sulphate of potass. given in pill, combined with quinine and ipecac, and sometimes with aloes and rhubarb and ipecac, or in solution with rheum and ipecac, or fluid extracts of taraxacum, rumex acutus or sarsa. The alterative effects of mercury in this form of the disease sometimes produce a very favorable change, but this improvement is too often only temporary. The local applications are numerous; among them are solution of carbonate of soda in an emollient decoction, iodide of sulphur and *creosote*. Cazenave & Schedel retain, Wilson rejects the term porrigo, owing to the confusion which exists in relation to the precise disease intended to be described by this appellation; of the six varieties made by Willan & Bateman, two only are in reality entitled to the name. *Their* porrigo favosa is a variety of impetigo. The porrigo favosa of C. & S., the *lupinosa* of W. and B., and the P. scutulata alone, are contagious and honey-combed. Dr. B. has added, as usual, a practical and very valuable note on the treatment of the former, and has derived, he tells us, most benefit from ointments of *creosote* and iodide of sulphur, thinking that alterative and mildly stimulant topical remedies are more effectual than powerfully irritating ones. Constitutional treatment, mercurial alteratives and laxatives, followed by tonics (of which the iod. of iron is an especial favorite with the author), &c., aid materially in effecting, as well as perpetuating, the cure. This article is followed by an article on glanders and farcy, by the translator, Dr. Burgess, which is creditable to his research and literary ability. It may be doubted from a perusal of the symptoms of this terrible malady in the human subject, how far it strictly merits a place among the diseases of the skin. A few hard round phlyzaceous pustules on different parts of the body in glanders, and small tumors, having a glossy red appearance, cracking and exuding a thin acrid fluid, in farcy glanders, are, among a host of other symptoms, all consequent upon the introduction within the economy of a morbid poison, the *cutaneous* phenomena of this so-called disease of the skin. *Creosote* is useful in this malady, as well as in others. Guided by his convictions of the connection between the disorders of nutrition and the cutanei, Dr. B. informs us, in a long and valuable note on page 205, that lichen in all its forms, is most frequently very evidently so associated; often depending on a less evident, but discoverable disorder of the *secondary* process of digestion, instead of the primary. Alteratives, diet, hygiene, perhaps tonics, fulfil the indications; sometimes, when not contra-indicated, arsenic, sulphur, mercury, sarsa, taraxacum and the rumex. One of the local remedies we take pleasure in quoting, from repeated opportunities of testing its effects, and which we are glad to see that Dr. B. has brought into the notice it deserves. It is one suggested by our esteemed friend and quondam colleague, *Dr. James Crane, Jr.*, now of Brooklyn, L.I., and familiarly known at the Northern Dispensary of this city (in which he ministered for several years with credit to himself and benefit to his patients), as the *Ung'm Craneii.* It consists of nitr. bismuth ʒij., ung. hydr. nit. ℥j., lard, or stramonium ointment ℥ss., and is singularly efficacious. The stramonium ointment alone, and ointments of sulphur and carb. potass, or of *creosote*, also relieve the distressing pruritus of the disease. Lichen agrius (chronic) wonderfully resembles eczema, and lichen simplex looks at times very like scabies; the diagnosis of lichen is often very difficult, and the *best* diagnosticians we have known puzzled and doubtful, if not deceived.

In prurigo, a most distressing malady, which really renders life in some cases a burden, Dr. B. thinks sulphuret. potass, *by far* the most beneficial, with rhubarb, aloes, ipecac, rumex, or sarsaparilla. Lepra is usefully treated by ointments of white precipitate, prot. ioduret, and deut. iod. of mercury, napthaline and *creosote*, and on page 223 is an excellent note on the liquor of Donovanne, a remedy with which in Lepra and psoriasis, Dr. B. has had reason to be pleased, and to which we shall have hereafter occasion to allude.

In some forms of the latter, liq. potass, or the bi-chloride of mercury (in *palmaris* particularly), are useful. Page 234 contains a useful note on pityriasis capitis, often a troublesome and obstinate affection, in which as (probably) in every other cutaneous affection, "the general health requires attention," and "the *creosote* ointment, in such cases, is often useful." In a note on page 236, Dr. B. tells us that ichthyosis is surely misnamed: "there is nothing scaly about it." We are surprised at this remark. "It is characterized," say the authors (C. & S.), "by the development of thick, hard, dry, imbricated (?) *scales*," &c. In an account of a case given, we are told that the patient's face became covered with "small dry greyish scales." "These *scales* were much thinner," &c.: "these *scales* fell off," &c., and again, "the skin is thick, furrowed and covered with *genuine scales*," &c. (p. 237). Is the description given by Messrs. C. & S. inaccurate, or is Dr. B. correct in his assertion? The disease, insomuch that the scales do not overlap like those of the fish (are not imbricated or super-imposed), *is* misnamed, the name, says Rayer, tending to consecrate an anatomical error. We observe that Plumbe agrees with Dr. Bulkley in thinking that it more resembles warts than scales; and says that many cases of ichthyosis of the leg were cured by the combined influence of pressure and the cold lotion. (Treat., p. 313, Am. ed.) Dr. Bulkley has contributed some excellent notes to the article on lupus, particularly as to the non-ulcerating form and the treatment of either. In the form of superficial lupus accompanied by ulceration, and so analogous to scrofula, iodide of potassium, or iron; in l. c. hypertrophia, Donovan's liq., cod liver oil, and liq. potass, the external use of iodur. plumbi, vapor douches, and leeches, are favorably mentioned; and the mode of applying the chlor. zinc paste is described on page 279. The chlor. antim. and hyd. prot. nitr. and *creo-*

sote, have all been used successfully. Excellent notes are appended to the account of the syphilides, particularly one on page 311, referring to the uses of the proto-ioduret, and deuto-ioduret, and bi-chloride of mercury, &c.; and to that of purpura on page 320, all practically useful in the highest degree. On page 323 is an allusion to the famous case of the Asiatic, operated on in London some years ago for an immense hypertrophy of the prepuce (scrotum?), weighing fifty-six pounds. The poor fellow bore the operation with firmness, but sank from the shock in a few hours. It is an error hardly worth noticing, but we are told that Sir A. Cooper was the operator on the occasion; whereas the person who really did perform the operation was Mr. C. A. Key. "A case of this disease (Elephantiasis of the leg)," says Dr. B., "came under my observation about one year ago, in which the local application of the vapor of sulphur and iodine, together with the administration internally of the iodide of iron, was attended with success."* An interesting case of cheloidea is mentioned on page 328.

We have thus hastily extracted from the notes with which Dr. B. has everywhere enriched the work, the publication of which he has superintended, a few items of value, sufficient to display the character of the whole, and to indicate the interest and importance of what remains. That such a work as that of Cazenave & Schedel so edited, must be a very useful one, is evident, but it is impossible not to regret that the extensive knowledge and great practical sagacity of the annotator should be confined to such narrow limits. If Dr. B. would collect from existing records, such an account of cutaneous diseases as he knows to be clear and accurate, and suited to the wants of the practical man, augmented by the results of his own experience, illustrated by selections from his own ample recorded observations, and combining with the therapeutics advised by others, that which his own practice has taught him to be useful and appropriate, and furnish us with his own rules for the management of this intractable class of diseases, he would produce a work which is still a desideratum in medicine, and which would be worthy of himself, his country, and the science which he has so successfully cultivated. It is, perhaps, not too much to say that such a work is expected from him. It would be no crude compilation, made by one who had not yet learned; but a digest of the result of long, ample, extended, and accurate observation, and of practical experience, in which full confidence might be placed, and which could not fail to be in the highest degree interesting and important. In the hope that by these remarks he may be stimulated to undertake the task, we venture to assure him, in advance, that his book will be received with the favor due to his distinguished position as a dermatologist, and want neither readers nor a publisher.

W. C. R.

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* It is curious that neither in Plumbe nor Wilson is there any notice of elephantiasis. R.

ART. XII.—1. *The Chronic Diseases; their Specific Nature and Homœopathic Treatment.* By SAMUEL HAHNEMANN. Translated and edited by CHARLES J. HEMPEL, M.D. With a Preface by CONSTANTINE HERING, M.D. New York: W. Radde. 3 vols., pp. 202, 323, 328.

2. *The Homœopathic Examiner.* By Drs. GRAY and HEMPEL. Vol. IV., Nos. 1, 2, 3 and 4, July, August, September, October, 1845. William Radde, New York.

THE works, whose titles we here give, have been placed in our hands for notice, but our limits will not allow us to go into such an analysis of their contents as we could desire, and as the nature of the subjects discussed would seem to demand. That the doctrines of Hahnemann have had a wide sweep, and excited a very important influence over the minds of a large and respectable class of society in the last few years, no one can deny; that they are not to be put down by ridicule we have always conceded; and that they have accomplished some good, in an indirect manner, we cheerfully grant;—still it is a notorious fact, that few, if any, men of eminence in the profession have given countenance to them, or ventured to soar into what *Stapf* calls "*the mysterious regions of the homeopathic method of cure.*" We hold that it is both difficult and useless to reason with the enthusiastic and credulous believers in any novel system, whether of medicine, politics, or religion (and the zeal of new converts is generally proportioned to the recentness of their conversion); that those, who are, for the most part, ignorant of the ordinary laws which regulate the course of diseases, should mistake the recuperative efforts of nature, or the influence of a regulated diet, for the effect of their remedies, is what might naturally be expected; but the man who will entirely overlook these influences, and attribute to the 2000th potence of a drug, or the 30th, such favorable changes as may occur during its administration, is better fitted for a lunatic hospital than the practice of the healing art. It is a remarkable fact, that, so far as we know, no homœopathic writer or practitioner gives Nature any credit for cures effected under this system. Hahnemann, throughout the Organon, disparages her efforts, and denies that she ever accomplishes a cure; while, in his chronic diseases, he states expressly, that "strict diet is not the curative agent in the treatment of chronic diseases, as is asserted by the opponents of homœopathy, with a view of lessening its merit; the cure depends chiefly on the *medical treatment.* This is proved by the fact that many chronic patients have followed for years the strictest diet without being able to obtain relief;—the disease increases, as is the case with all chronic diseases." (Chronic Diseases, vol. i., p. 137.) Of course, under all circumstances of homœopathic treatment, the infinitesimal must ever carry off all the honors. But how in case of failure? To what must that be ascribed? Chiefly, we are told, "*to former allopathic treatment.*" "A great chronic disease," says Hahnemann, "may be cured in the space of one or two years, provided it has not been mismanaged by allopathic treatment to the extent of having become incurable. *One or two years ought to be considered a short treatment!*" This was the grand *key-note* sounded by Hahnemann more than forty years ago, and it has done good service to his disciples from that day to this. Every unfledged stripling, who wished to set the public agape by marvels he had done, or could do, or by those done by others of the homœopathic school, had but to arm himself with this grand shield, and enter the lists, with Jahr as his *vade mecum*, and if he did not accomplish what he had promised, why there was always ready that grand scape-goat, on which he could cast all his sins, former *allopathic treatment.* The mischief which has thus been done to our profession, by destroying the confidence once justly reposed in it by the public, and that, too, by men bound by the same code of honor, and of ethics (for, nominally, they are *of us*, if not *with us*), can neither be estimated nor repaired, at least in our generation. Can these men not see that this is a suicidal policy; that they are thus wielding a two-edged sword, which is as likely to wound them as us? We are told, on good authority, that "a house divided against itself, cannot stand;" neither can a profession. The warfare that has been waging by the two wings of the grand army has thrown the main body into confusion, and the public has sided with one or the other as humor, interest, chance, mental organization, or other circumstances dictated. We have no misgivings as to the final result; no exclusive system, or doctrine, in medicine can maintain its ground for any length of time; and we are even now informed, by the "Homœopathic Examiner," that "Homœopathy appears to be merging rapidly into blind, headlong alleopathy, and is destined, from present appearances, *to be a scourge, rather than a blessing, to the human family*." (Vol. iv., No. 3, p. 153.) This same writer also remarks, that "whether the doctrines of Hahnemann be true or false, it is certain that he scarcely has a devoted follower in the United States, or even in Europe, if we are to judge from the foreign medical journals." (Loc. cit.)

Those acquainted with the present views of homœopathists, are well aware that there are as wide differences of opinion among them, both in relation to theory, and the *modus operandi* of remedial agents, as there is among allopathic physicians, and quite as great differences in modes of practice. For example, *Dr. Gray*, one of the Editors of the "Examiner," and the oldest practitioner of homœopathy in the United States, and whose opportunities of experience no one will question, remarks that "homœopathy demands the application of larger means than homœopathists employ; *the art is not allowed to come up to the demands of the science*, for we confine ourselves not merely to what we call the pure *pathogenesis*, but to that side of it which comes from the very minute doses of drugs on trial with the healthy, when we should, as I believe, sometimes give doses which correspond to that side of the pathogenesis which springs from the *massive doses* given to the healthy." By way of illustration, Dr. G. mentions the Asiatic cholera, and says very truly, that "no attenuation of camphor will ever so intoxicate a healthy man as to make him resemble a case of cholera. Collapse, and a just adaptation of the science (?) of homœopathy to this case teaches us that the exhibition of *any attenuation* to a collapsed case of cholera must be wholly fruitless." We would ask whether the same remark will not apply to all other cases of "attenuated" doses. Will, or will not, the symptoms described in homœopathic works, be produced in the healthy by the infinitesimal or "attenuated" doses; and if not, as Dr. G. has conceded in the case of *camphor*, must not the exhibition of any attenuation in disease "be wholly fruitless?" If camphor is an exception to this law, let us know for what reason. Dr. G. goes still further, and says that "it is by no means a necessary condition of an homœopathic cure that the doses be of the potentized (infinitesimal) form." "Nay, that the potentized form is in some cases inevitably *non-homœopathic*."—p. 3. We are glad to find Dr. Gray expressing the opinion that it "is indispensably necessary to enlarge the boundaries of our art (homœopathy) by an enlightened reading and study of the practice of the old school." This contrasts very favorably with the opinion of another distinguished writer in the same journal, who says that "those who undertake the study of homœopathy, must throw all their previously acquired knowledge overboard."

Again, the senior Editor of the Examiner tells us that he deems "it not only justifiable, but an imperative duty, so long as the present imperfect state of our art exists, that we apply remedial agents occasionally *which are not yet reduced to scientific order*; that is to say, we are sometimes forced to apply drugs, from their known good effects in pretty well defined groups of symptoms, with the physiological or pure pathogenetic powers of which we are unacquainted. *This practice in our school is a return to the long extinct mode of the Empirical Sect!*" We beg pardon, Dr. G., but this is nothing more nor less than a return to *allopathy*. It is an appeal to observation and experience, uninfluenced by theory, and this it is that constitutes the glory, the *decus et tutamen* of ordinary practice. This is the rock on which true medical science reposes, and it is a rock too, on which homœopathists are very glad to plant their feet, when about to be swallowed up in homœopathic quicksands. Among these means Dr. G. mentions the *polypodium filix mas* and *cowhage* against worms: *mesmeric passes!* the external and internal application of heat and moisture (hydropathy!), and also BLOODLETTING!! "an agent," says Dr. G., "which I have not ceased to apply during the 18 years of my acquaintance with homœopathy: at first, by advice of my learned and lamented predecessor, *Dr. Gram*, it was continued *upon purely empirical grounds*, but now, and for many years past, I apply it *upon the homœopathic basis*, having acquired, partly by experiments on myself, and partly by reading allopathic authorities to that end, *a tolerable pathogenesis of it!*" &c. With such a creed it is not in our heart to quarrel. To practise *homœopathically* when we *may*, and *empirically*, i. e., allopathically, when we *must*, meets our views very closely; and were it not for the name, for which we have really no respect at all, we would as soon go for this system as for bread-pills, colored water, and placebos generally. But there is an odor about homœopathy that is really offensive to men of ordinary sensibilities, and we therefore are obliged to plod along on the old platform.

Dr. Hempel, the associate editor of the "Examiner," opposes these views of his colleague, and says that "the time has already come when *Protestantism*, or the *right of free inquiry* has introduced a division in the ranks of homœopathists, and has made these diverging members of the common family as uncompromising opponents as are the adherents of Hahnemann and Galenus. I do not," he adds, "wish to appear as a wavering reed in the tumult of opinions which is raging around me. I want to take part in the battle; I wish to take up arms as a determined champion of the good and noble cause of homœopathy, *under the banner of Hahnemann*, and I shall resist, with all my energies, those homœopathists, who deviate from Hahnemann's mode of applying the principle, '*similia similibus*,' without assigning proper reasons for their innovations."

Dr. H. would seem to condemn the "*right of free inquiry*," to the practitioners of this school; and on the same ground as is claimed for Swedenborg and Jo. Smith, by their followers, viz., that of *inspiration*. This is the end of the argument, if not of the law. "*Homœopathy*," says Dr. H., "*I regard as one of the forms of Divine wisdom!*" "I regard Hahnemann as a chosen vessel in which the progressive workings of Divine wisdom have realized the perception of a Divine truth;"—"the principle is Divine." "Homœopathy is the gift of God to all of us, and to the people;"—and so Dr. H. is willing to concede that "everybody has a claim upon it, and should be permitted to practise it according to the measure of his understanding." Again we are told that "among the practitioners of our art the *eclectic philosophers* have a legitimate use and existence. These are, properly speaking, *men without any fixed and definite principles;* they are guided by expediency and circumstances; they form a sort of transition-link between what is termed the extremes of a doctrine, and *may be and ought to be tolerated*, *provided they do not set up their notions* as THE TRUTH." Were not the co-editorship of the "Examiner" a sort of personified JANUS, perpetually looking different ways, we should call on the associate of Dr. H. for one of his lowest bows on this occasion. But situated as they are it would inevitably be thrown away—as for ourselves, we should esteem a *Siamese* partnership more to our taste, as it would doubtless prove more profitable to our readers. It is somewhat remarkable, that Dr. H.'s veneration for Hahnemann did not prevent his using the following language in his preface to the translation of "Chronic Diseases." "Hahnemann's conception of the action of the homœopathic drug was altogether *vague*, *incomplete*, *and even erroneous;*" accordingly we have a new version, or "conception of the homœopathic doctrine," of Dr. H.'s own manufacture, which he dignifies with the name of "demonstration" not "speculation" and of which we shall speak presently. We are under great obligation, however, to Dr. Hempel, for his excellent translation of Hahnemann's work on chronic diseases; it is the first time the American practitioner has been put in possession of an English version of this somewhat celebrated work.

Our readers are aware that Hahnemann makes PSORA, or the *itch*, the grand source, or to use his own language the "common mother of most chronic diseases." "It may be said," he remarks, "that at least *seven-eighths* of the presently existing chronic maladies originate in the reckless suppression of the chief external symptom of *psora*, which acts as a substitute for the internal disease. The remaining eighth originates in *syphilis* or *sycosis*, or in a complication of both miasms, or, what is very rare, in all three combined—*syphilis may be easily cured by the smallest dose of the best mercurial preparation, and sycosis* by a few doses of *thuya* employed in alternation with nitric acid; the cure of these miasmatic diseases is only then difficult and tedious when they are complicated with *psora*." P. 30.

According to Hahnemann, *psora* was the direct result of original sin; it was that primeval taint that entered into our first parents, the moment they ate the forbidden fruit. At first it appeared in the form of leprosy; during the middle ages, it assumed the shape of a malignant erysipelas, called *St. Anthony's fire;* and towards the end of the 15th century "it took the form of the ordinary eruption of the itch." Dr. Hempel agrees with Hahnemann in his views as to the nature of *psora*, and says that "the principle of division, or dissolution which man had suffered to be introduced into his spiritual nature, must necessarily have embodied itself in a corresponding principle in the material organism. It is this principle which Hahnemann calls *psora*. In proportion as man's spiritual nature becomes developed and purified, this psoric miasm will be diminished; and will finally be completely removed from the life of humanity." Again, " the psoric principle marks the general adaptation to evil, recognized and inherently received by the human organism ; acute diseases are violent and sudden invasions of the organism by the *forces of evil.* These sudden invasions could never have taken place without man having first admitted the psoric principles to be constitutional in his organism." P. 3. This is certainly the most rational explanation we have ever met with, of the cause of the vital principle itself being so often at fault—that principle which takes upon itself the regulation of all the forces, properties and functions of life, being compelled to succumb to so many " forces of evil." The *psoric miasm* throws a flood of light over this otherwise obscure labyrinth.

According to Hahnemann and his translator, the causes of disease, " forces of evil," are *spiritual essences ; disease itself is spiritual, and remedies are likewise spiritual.* A writer in the Examiner very pointedly observes, " spiritualize diseases if you will, but recollect they inhere in material subjects, and produce material changes,—consider also the actions of drugs as potential, but bear in mind that their potencies reside in material vehicles." (P. 151.) In reply to this, Dr. Hempel has the following remarks.

> " What then is it, what is the agent or principle embodied in the constitution of medicinal substances, which is not likewise contained in those that are used as nourishment ?
>
> " It is the spiritual or dynamic element of the medicinal substance, which is set free by the processes of trituration and succussion adopted by Hahnemann. The body of that principle is annihilated by those processes ; the sugar of milk and the alcohol are assigned to it as merely temporary abodes, artificial bases or forms, vehicles, for which it has *no inherent affinity*, and which it will therefore *leave* as soon as it is placed in relation with *a state* which is *homogeneous* to its own nature. If trituration and succussion be necessary to *set* that dynamic agent *free*, then the natural inference is that its freedom, its certainty and rapidity of action, its expansiveness, will increase proportionally to the extent that those processes are carried on. A cure is not effected by the body of the medicinal substance, but by the dynamic or spiritual agent which is contained in it. This point the writer has completely overlooked ; otherwise he could not have established a comparison between the thirtieth potence of Hahnemann, and the tincture on one side, and the 2000th potence on the other. If Hahnemann had simply intended to *divide* the tincture by carrying it up to the thirtieth potence, why was he so particular in establishing strict rules for the trituration and succussion of the drugs ? *why count the minutes, and the number of shakes ?*"

If we understand the meaning of Dr. H., it is that the spiritual element of the drug is developed, or so modified by a certain amount of trituration, or a certain number of shakes, as to leave the body of the drug, whenever it meets with a condition analogous, or, rather, " homogeneous to its own nature." Who can tell *how many shakes* this is going to take ? Will the " spiritual element " speak out when it is manipulated to the " top of its bent ?" Why will not a few hard rubs, or a few tremendous shakes so discipline this stubborn element, this " lurking devil," as to make it willing to leave its " temporary abode," as well as a larger number of moderate rubs or shakes, and so save an immense amount of precious time. Only think of preparing medicines homœopathically of the 2000th "*potence*," for that is Dr. Hempel's favorite dilution.

With respect to the highest potences, by the way, Dr. H. thinks that if a single cure had not been effected by them, it would be no reason at all for rejecting them. "There must," he remarks, "*be a beginning to all things,* and there certainly has been to the use of the 30th potencies. We can assure the writer that we have seen stimulating effects from some of the highest potencies, and we know that others have likewise. We do not think it would have been good policy for Hahnemann to appeal to *experience* when he proclaimed the law, '*Similia similibus*,' as a universal and divine principle." We think so too.

Dr. Hempel, we are surprised to find, after conceding his divine mission, is dissatisfied with Hahnemann's explanation of the *modus operandi* of homœopathic drugs, and says that they have given rise to objections like these,—"To cure a burn, you must burn the limb a little more; to cure a simple fracture, you must make it compound. To be sure, such objections are absurd; but they are justified by the incompleteness of Hahnemann's own explanations of his theory." (*Chronic Dis.*, p. 159, vol. i.) Let us then see what is Dr. H.'s explanation of the homœopathic method of cure. "In my inaugural *Thesis*," he remarks, "published by Mr. Radde, 322 Broadway, I have indicated the *true reasons* why the homœopathic remedy should exercise such a great influence upon the disease. The reasons which I have stated there, do by no means explain the inmost agency of the homœopathic drug; but they constitute, *and will for ever constitute*, the immovable basis upon which the mysterious workings of the homœopathic remedial agents have to be investigated and explained. In my thesis I have *demonstrated that every homœopathic cure is a materialization of that abnormal vital state which we call disease;* that the homœopathic remedy acts by reducing the disease to its own natural order or form of existence, which is the medicinal substance; and that the disease leaves the organism by a compound force, first by virtue of the irresistibly attractive power which the medicinal substance exercises over the disease, and by the consequent restoration of free agency imparted by the vital principle. Hence in the homœopathic process of curing there is no forcing; the disease leaves the organism of its own accord, in perfect freedom, for the simple reason that the human organism is not its natural order of existence, and that the medicinal substance is this order. Nor is the disease annihilated. On the contrary, it is developed by the medicinal substance *into its ultimate type;* it is upon an ultimate physical type that all intellectual, spiritual, and vital states of existence rest, whether they be normal or abnormal; *the ultimate types of all abnormal vital states of existence are the medicinal substances.*" (*Chronic Dis.*, vol. i., p. 160.) This, be it recollected, is what Dr. H. calls a "*demonstration, so far as any physical truth can be demonstrated* in the present state of our knowledge." Our brain absolutely grows dizzy and reels in attempting to fathom this rationale; this great fundamental basis of the *modus operandi* of all homœopathic drugs! What are these "forces, which, instead of acting upon, or embodying themselves in matter, act upon and try to embody themselves in the animal organism, and adapt it to their own nature?" We get a very faint glimmering of what Dr. H. means, when he adds that "this adaptation can only be completed by first destroying the organism, converting it to formless matter, and then impressing upon this formless matter their own creative energy." If these "forces of evil" have such "creative energy," why are they lodged in the dead matter of drugs, and unwilling to leave it, till they have undergone a certain number of shakes, or triturations? Then it is, it seems, and not before, that they are willing to shake hands with their first cousins, the "forces of evil," or the "spiritual elements" of the diseased organism, and form a treaty of conservative alliance! "I have conclusively shown," says Dr. H., "that the remedial agent makes no *direct* impression upon the vital principle, but that the impression is made *upon the disease*, and that, by means of this impression, the vital principle is freed from its embarrassed condition." (P. 113.)

The following is Hahnemann's mode of curing Syphilis;—"Take a grain of the purest liquid quicksilver, and triturate it for 3 hours with 300 grains of sugar of milk, taking 100 grains at a time and triturating them for an hour. In this way you obtain the million degree of the trituration. Of this trituration you dissolve one grain in alcohol, continuing the process of dissolving through 27 phials up to the *decillion* degree. Formerly I was in the habit of using one, two, or three globules of the *billion* degree, for the cure of Syphilis. The higher degrees, however, even the *decillion* degree, act *more speedily, more thoroughly, and more mildly.* If more than one dose should be required, *which is seldom the case*, the lower degrees may then be employed!" but *why*, if the "higher act more speedily, thoroughly, and mildly?"

Hahnemann exclaims, "God be praised, the homœopathic physician has dispensed with the necessity of employing the barbarous practice of blood-letting. (P. 177, v. i.) Beginners and learners may be pardoned," he adds, "for using depleting processes, but if they dare to pride themselves on their pretended improvements, and to promulgate BLOOD-LETTING and cupping as processes that are eminently homœopathic, *then they make themselves ridiculous;* they ought to be pitied for their dabbling, and for their bungling blindness, which inflicts suffering upon their patients. Is it *laziness*, or is it a foolish predilection for the pernicious routine of Allopathy, which prevents them from making themselves acquainted with the true homœopathic remedy, *that always acts with certainty and success.*" (p. 181.)

But we have already exceeded our limits. Those who wish to draw their homœopathic lore from the fountain-head, will go to Hahnemann; those who wish to learn its present *phase*, form and pressure, will consult the pages of the "Homœopathic Examiner." In reading these works we have been more strongly impressed than ever with the conviction that to believe in homœopathy as a true system of medicine, *requires a peculiar constitution of mind,—homœopathicus nascitur, non fit.* Here, it is evidently not faith like a grain of mustard seed that is to remove the mountain, but it is the mountain of faith that is to swallow the mustard seed!

ART. XIII.—*Lectures on Puerperal Fevers.* By WILLIAM HARRIS, M.D. Philadelphia, 1845. 8vo., pp. 50.

THESE lectures, published by the medical class, to which they were delivered, are highly creditable to the author, embodying, as they do, sound precepts and judicious advice, couched in simple and terse language.

Dr. H. maintains that puerperal fever is either inflammatory or congestive; that the inflammatory form of the disease is the more mild and curable, especially if the phlegmasia be confined to the peritoneum; and that the congestive is more malignant, and often beyond the control of the best directed remedial agents. The phlegmonous form of puerperal fever may originate in the peritoneal covering of the uterus and its appendages, extending thence, in various directions, over the peritoneal sac; and to this the name of puerperal peritonitis may be properly given; or it may commence in the muscular and mucous coats of the uterus, in which case it is a *puerperal metritis*, or *hysteritis*; or in an inflammation and suppuration of the veins and absorbent vessels of the uterine organs.

Dr. H. shows very conclusively, as we think, that puerperal fever and erysipelas are convertible diseases, but this has been so thoroughly demonstrated of late, that there is no necessity of detailing the facts which go to sustain this relation. Our limits will not allow us to go into a full examination of these lectures; the general conclusions are thus summed up:—

> "1st. That puerperal fever is not a specific disease; that it appears under different forms, and assumes every variety of type, from the lowest congestive to the highest inflammatory; and that the physician who always assails this Protean malady with stimulants, will be as often disappointed in his expectations as he who is determined to subdue every case by the free use of the lancet.
>
> "2d. That physicians have erred in supposing puerperal fever to exist only in the particular form of disease which they themselves have observed; and in assuming that the treatment which was most successful in one epidemic must be equally efficient in all. In other words the great mistake has been in prescribing rather from the name of the disease than its symptoms.
>
> "3d. That there is no medicine, with which the profession is acquainted, that exerts a specific action on any form of puerperal fever.
>
> "4th. That the inflammatory type of the disease is the more mild and medicable, and will yield to early and copious bleeding, aided by other depletory measures.
>
> "5th. That in the adynamic form of the disease, where early collapse precludes all antiphlogistic measures, the only judicious plan of treatment is to support the patient by light nutrition, tonics, and stimulants, and trust to the *vis medicatrix naturæ*; as a critical abscess pointing outwards, or some other critical evacuation may conduct the case to a favorable issue.
>
> "6th. That pathological anatomy has afforded the profession but little assistance in investigating the character of the disease at a curable period; but has only exhibited the extent of its ravages when it had attained a height at which it must be fatal to life.
>
> "7th. That close observation of the phenomena which the disease presents during life is of more importance to medical science, than inspecting the changes which are to be found after death.
>
> "Beyond these conclusions I am not prepared to go. There are still some points connected with the character and treatment of puerperal fever, about which my mind is not satisfied, and when I revert to the little success that has attended the efforts of our profession to arrest its ravages, I am willing to acknowledge with Burns, 'that I find it much easier to say what remedies have failed, than what have done good.'"

Art. XIV.—"*A Complete Practical Treatise on Venereal Diseases, including Observations on certain Affections of the Uterus, attended with Discharges.* By William Acton, late Interne at the Female Venereal Hospital, Paris. First American Edition, with additional Illustrations and colored Plates. New York; J. S. Redfield. 1846. 8vo., pp. 334.

We have risen from the perusal of this spirited monograph with a feeling of entire satisfaction. It seems that the great desideratum is at length accomplished; and that a work elucidating the correct pathology, and sound practical treatment, of the various maladies denominated venereal, is before us. The "*ultima Thule*" is reached; and it should be a cause of just congratulation with the profession, that these diseases, around whose origin and history so much of obscurity has hung—whose ravages have been so terrific, and whose consequences so deplorable, have at length in a great measure been divested of mystery and terror, by the researches and experiments of enthusiastic investigation.

For the last century, the inquiries and discoveries of some of the master spirits of medicine, have been tending towards this end. Diligent feet have been treading the paths and exploring the labyrinths. Every successive pioneer has enlarged the domain left by his predecessor, until at this day the field is open—the boundaries established—and the landmarks set. Thus from the earlier investigations of Astruc, and Hunter, and Bell, to the more recent and splendid discoveries of Ricord, now enlarged and perfected by Acton, we have the records of syphilis, from the vague conceptions of the earlier physicians, to the incontrovertible deductions, founded upon the careful observation of phenomena, which so eminently characterizes the science of medicine at the present time. This progressive unfolding and development of the obscurities of scientific research, affords a noble illustration of the history of medicine from its morning, enveloped in cloud and mist, to the noon-tide of its prosperity and light; and for all this, our profession is mainly indebted to the method of reasoning by induction, revealed to the mind of Bacon some two hundred years ago.

We are glad to find such a book coming from such a source. Its author, for a series of years an interne of the largest venereal hospital in the world, a pupil of Ricord, and conversant from personal observation with the treatment of the disease in all the great continental hospitals, comes to us with credentials that demand and merit our confidence. As to the fulfilment of these expectations, his work must be his judge: but we hesitate not to affirm, that it will be found the most complete and satisfactory treatise on the subject in the language. While for the most part the author follows the arrangement and classification of Ricord, his work is more eminently practical in its character, and better adapted to the necessities of the practising physician. Herein they differ.—While the former gives almost his whole attention to his investigations into the nature of the syphilitic contagion, the non-identity of the virulent and non-virulent affections, proved by his famous "test by inoculation," to the exclusion of practical detail in treatment, the latter has merely adverted to these well established facts, while he devotes his whole energy to the elucidation of pathological conditions, accurate descriptions of appearances presented, and the best mode of treatment for the various forms and stages of the disease. In the therapeia, where Ricord was deficient, Acton has been the most comprehensive.

Some idea of the author's scope and arrangement may be obtained from the following brief synopsis of his work :—His introduction contains the history of venereal diseases, and an able argument to prove that these maladies were known to the ancients. His conclusions are deduced partly from allusions in Holy Writ, and partly from accurate descriptions of these diseases by physicians of early times.

He divides his treatise into two parts—the first relating to non-virulent or blenorrhagic affections ; the second to virulent or true syphilitic diseases.

Chapter I. treats of Blenorrhagia.—Chapter II., of Blenorrhagia in the Male, with Balanitis, Epididimitis, Strictures, Affections of the Prostate Gland, False Passages, Disease of Cowper's Glands, Infiltration of Urine, and Fistulous Openings.—Chapter III., of Blenorrhagia in the Female.—Chapter IV., Forms of Blenorrhagia common to both sexes, including Ophthalmia, Affections of the Anus, of the Mouth, Nose, and Ears, Vegetations, Herpes Preputialis, Eczema, and Excoriations.

Our author prefers the generic term blenorrhagia, to designate the non-virulent affections, to those in more common use, particularly gonorrhœa, inasmuch as it conveys a wrong idea of the pathological condition, a consequence, under the present improved nomenclature, highly to be deprecated.

Our limits forbid entering into anything like a critical analysis of his treatment. We can barely notice his remarks on the *abortive treatment* of gonorrhœa, a method so often successful, cutting short in a few days this generally protracted and loathsome malady. He says, " *At the commencement of the discharge, and before any redness is seen around the urethra, or pain felt in making water*, the surgeon will frequently be able to cut short the affection, and cure his patient. It consists, in addition to other means above mentioned, viz :—(low diet, rest, and moderate antiphlogistics), in employing during the succeeding forty-eight hours, twelve injections of nitrate of silver ; the strength of the solution of the salt should be two grains to ℥ vij. of distilled water. Let the injections then be left off, and cubebs or copaiva given in the doses above spoken of. If the case be recent, this treatment will succeed fifty times in a hundred cases, and there is no fear of occasioning *stricture* or *swelled testicle*, at this period of the complaint.

In confirmed cases, he also uses the injections joined with the exhibition of the anti-blenorrhagic medicaments, which he thus enumerates in the order of their efficacy—copaiva, cubebs, turpentine, diuretics, astringents, tonics, iodine, &c. His chapter upon strictures, deserves careful attention. He, however, argues strenuously against the commonly received opinion, that injections, at any period of the disease, are the exciting causes of stricture. The " post hoc, ergo propter hoc " doctrine finds no quarter at his hands. He contends that the prolonged inflammation, which induces the organic changes of induration and hypertrophy, is the cause of this unfortunate consequence of gonorrhœa, and that the " culprit injections " are innocent of the offences laid at their door. This, however, is a mooted point, and requires perhaps further elucidation.

The second part of the work is devoted to the consideration of syphilis, which he thus defines—" Syphilis is a virulent affection, the essential character of which is, its dependence upon a special cause or distinct virus."

Chapter I. Primary Symptoms, Chancre, Bubo.—Chapter II., Secondary symptoms, Affections of the Skin, Mucous Membranes, Eye, and Testicles.—Chapter III., Tertiary Symptoms.—Chapter IV., Syphilis in Children.

In the treatment of the primary sore he follows the course adopted by Ricord, viz. cauterizing the part with a pencil of nitrat. argent., and dressing with lint, saturated in a solution of the aromatic wine of the French pharmacopœia, or what is cheaper, and answers equally well, "decoct. alb. ℥ viij., tinct. catechu, ʒ ss." The cauterizations are to be repeated as long as the period of ulceration shows itself upon the removal of the dressings. These means suffice for the cure of most of the forms of primary chancre. When the disease remains stationary or becomes indurated, it is received as an evidence that the system is about to be constitutionally affected; experience having shown that secondary symptoms will follow from indurated chancres in eighty-six out of every hundred cases.

The well-known antagonistic powers of mercury are then brought to bear upon the disease, either in the form of blue pill, or, what he prefers, the proto-ioduret, in one grain doses, to be taken at night until its effects are visible upon the induration. Ptyalism is avoided if possible.

When secondary symptoms make their appearance, the same preparation of mercury is employed conjoined with sudorifics and tonics. He objects to "corrosive sublimate" for the following reasons. "Corrosive sublimate, as an internal remedy, should we think be excluded from general use. It has a great tendency to produce colic, and gastro-intestinal irritation, and although we have seen it employed on a large scale in France, we have observed few patients who have been able to submit to it long enough to produce a complete cure."

In the management of tertiary affections, we will quote his own words. "The employment of tonics, nutritious diet, proper clothing, &c., will often have the best effects. Among other preparations, we have observed those containing opium to be followed by the best effects, in allaying local and constitutional irritation. Mercury in its various forms is, generally speaking, as prejudicial at this stage as it was beneficial in secondary symptoms, and although in those symptoms of transition between the secondary and tertiary, as in deep tubercles of the skin attended with callous ulcerations, it may still be advantageously employed, it is nevertheless true that the further we retire from the early stage of secondary symptoms, the less efficacious it becomes until it ends in being highly prejudicial."

In these cases the author places his chief dependence on the iodide of potassium, given according to the following formula.

"We may commence," says he, "by a dose of ten grains taken daily in this mixture,—

Distilled Water, ℥ iij,
Iodide of Potassium, grs. x,
Syrup of Poppies, ℥ j.

This should be taken in the course of the day, in three glasses of decoction of sarsaparilla, or some bitter infusion. The doses may be augmented by ten grains every five days, until a hundred grains are taken daily; this dose I have rarely exceeded."

We can cheerfully recommend this treatise on the venereal disease to the notice of practitioners. It is, what it professes to be, a practical work; every page contains sterling matter. The typographical execution is highly creditable to the publishers, and the nine beautifully colored lithographs which adorn the book, present the morbid appearances to the eye with all the fidelity of truth.

Art. XV.—*The Philosophy of Mystery.*—By Walter Cooper Dendy, M.D., Fellow and Honorary Librarian of the Medical Society of London, &c. New York, Harper and Brothers, 12mo., 441.

This is a very agreeable and interesting *melange*, on matters which every one wishes to dive into, whether profitably or not. In these days of homœopathy, mesmerism, clairvoyance, somnambulism, and catalepsy, when we are so often obliged to exclaim,—

> "Can such things be
> And overcome us like a summer cloud
> Without our special wonder,"

we are glad to get hold of anything which aims to give us the *philosophy of mystery;* for if there is any philosophy in these matters, which too often assume the garb of trick, or *diablerie*, we wish to know it—we have dealt long enough in isolated wonders, and individual miracles; now let us set about generalizing,—reducing them to some recognized principles, and explaining them by some ascertained and established laws of our physical and intellectual being. If, for example, there is a mesmeric fluid, let us have the laws by which it is governed, and the circumstances under which it acts; if there is such a thing as transposition of the senses, give us the *quare* and the *quo modo;* the why and the wherefore; if Mesmer mesmerized the sun, as he said he did, be so good as tell us how he performed the mighty feat; if persons can see through the thoracic and abdominal parietes, and tell us the condition of the different viscera, do inform us why, in the name of wonder, they do not set about exploring other dark places, and seek for hid treasures, "deep in the ocean buried," and give us at the same time the rationale of the matter.

But we have no space at present, for a discussion of all these grave questions; we intend to dip into them ere long, in our way, and state all the *philosophy* we have been able to dig out of them; in the meantime we commend Mr. Dendy's book as the best thing we have met with, to clear up these marvels.

Art XVI.—*The Anatomical Remembrancer; or Complete Pocket Anatomist.* Containing a concise description of the bones, ligaments, muscles, and viscera; the distribution of the nerves, blood-vessels, and absorbents; the arrangement of the several fasciæ; the organs of generation in the male and female; and the organs of the senses. From the 2d Lond. Ed. N.Y.: Samuel S. and W. Wood, 1845. 18mo., pp. 245.

The object of this little manual is to recall to the mind of the student in anatomy, the information he may have acquired either by actual dissection, or by the perusal of works which profess to treat more fully on the subject. The descriptions, though concise, are clear and intelligible, and the work is well adapted for the purposes designed.

Art. XVII.—*A Pocket Atlas of the Descriptive Anatomy of the Human Body.* By J. M. Masse, M.D., Prof. of Anatomy, Paris. Translated from the last Paris edition, and edited by Granville Sharp Pattison, M.D., &c. New York: Harper & Brothers. 12mo., 112 colored plates.

We had thought that perfection had long since been reached in the way of anatomical plates, and that nothing more could be desired or expected in this department; but we must say that this work shows how feeble our conceptions were of the standard which might be reached in this department of illustrative art,—as the able editor has remarked, there are numerous anatomical classes in existence, but they are not only too voluminous and expensive to supply the wants of the great body of the profession, and can only be consulted as a general rule at home ; but here is a work which may be carried in the pocket, taken into the anatomical theatre and the dissecting room, and in fact may become the constant companion of the student and the practitioner. It will also be highly useful to the surgeon, who has no means of referring to the *subject* previous to an operation ; and the physician, also, when meeting with symptoms, which cannot be explained, by examining the position of organs, and studying their relations and nervous supply, as beautifully delineated in these plates, may find many of his difficulties removed, and thus be able to practise his art with more satisfaction to himself as well as benefit to his patients. The work, therefore, commends itself to all classes, and we have no doubt will have a circulation commensurate with its merits.

The engravings on steel, by Mr. Ormsby, and the coloring by Mr. Ackerman, cannot well be surpassed. The price is $3 for the plain, and $5 for the colored copies, which is about half the price charged for imported copies.

Art. XVIII.—*Outlines of the Nerves, with short descriptions.* Designed for the use of Medical Students. By John Neill, M.D., Demonstrator of Anatomy, in the University of Pennsylvania, &c. Philadelphia, Barrington and Haswell, 1845. Nine Lithographic Plates.

It is the object of this work to present to students of medicine, a simple and concise view of the nerves, and such as may be learned without difficulty. We think it a great advantage to place the names on the different nerves and filaments, so that the eye may take in both at the same time ; being in fact, the same plan as was adopted in relation to the arteries, in a former work by the same author. As we conceive the work admirably adapted to the purpose designed, we would advise every student of medicine to procure it, while studying this portion of anatomical structure.

Art. XIX.—*Urinary Deposits, their Diagnosis, Pathology, and Therapeutical Indications.* By Golding Bird, A.M., M.D., Assistant Physician to, and Lecturer on Materia Medica, at Guy's Hospital. Republished by Lea and Blanchard, Philadelphia, 1845. 8vo., pp. 222.

We are glad to find this standard work placed within the reach of American physicians. For an excellent analysis of its contents, we refer to Ranking's "*Half-yearly Abstract of the Medical Sciences*," which was issued and sent out with the last Number of our Journal. We shall hereafter give a somewhat extended notice of it; at present, we can only recommend it in general terms, as the best work yet published on this department of physiological chemistry, and one which should be in the possession of every well-informed physician, who wishes to base his practice on established principles of science.

Art. XX.—*A Manual of Auscultation and Percussion.* By M. Barth and M. Henry Roger, M.D., &c., Paris. Translated with additions, by Francis G. Smith, M.D., Lecturer on Physiology in the Philadelphia Medical Association, &c., &c. Philadelphia, Lindsay and Blakiston, 1845. 12mo., pp. 160.

This is a very useful manual of the most important diseases of the chest and abdomen, and their method of diagnosis by physical signs; and from its conciseness, is peculiarly well adapted to the wants of students and junior practitioners. The editor has performed his duty with decided ability. We cheerfully commend this manual to all who wish to cultivate the indispensable department of physical diagnosis.

Art. XXI.—*The Medical Remembrancer, or Book of Emergencies;* in which are concisely pointed out the immediate remedies to be adopted in the first moments of danger from poisoning, drowning, apoplexy, burns, and other accidents; with the tests for the principal poisons, and other useful information. By E. B. L. Shaw, M.R.C.S., and L.C.S. London; revised and improved by an Am. physician. New York: S. S. & W. Wood. 1845. 18mo., pp. 112.

We think, as a general rule, it is better to carry information in the head, than in the pocket; but there are some things which ordinary memories cannot compass, and it would be worse than useless to make the attempt. We doubt, however, whether these are such as belong to works of this kind; he must be poorly qualified, indeed, for the practice of his art, who, notwithstanding "the alarm and confusion" of sudden emergencies, knows not what to do. This is the very knowledge he is to acquire in studying his profession, and without it, he is not entitled to the name of physician. Still the work may be very useful to those who are liable to be called on, before they are fairly initiated into the knowledge necessary for the successful practice of their art; such as apothecaries; students; and families, where the immediate services of a physician cannot be obtained. For such it will prove a very useful manual, as the remedial advice is judicious and practical.

Art. XXII.—*A Lecture on the Philosophy of Medicine, Introductory to a course of Lectures on the Institutes of Medicine, and Materia Medica.* Delivered before the Medical Class of the University of New York, at the Session of 1845–6. By Martyn Paine, A.M., M.D., Professor, &c., &c. New York, 1845–6. 8vo., pp. 19.

We congratulate the author of this very able discourse, as well as the friends of the University with which he is connected, on his recovery from his late severe injuries (which for a time threatened the most serious consequences), and his restoration to former vigor and usefulness. Judging from the energy of style, and the range and grasp of thought displayed in this lecture, there is no lack of mental activity and vitality in the author, and we trust that the physical man is equally vigorous. Long may he be spared to expound the principles of a science, of which he has been one of our most ardent and successful cultivators; to dignify and adorn a profession of which he is a distinguished ornament.

The present lecture will compare favorably with the very best of the author's previous writings. Indeed, we are disposed, after a second careful perusal, to place it *first* among his numerous productions; both in point of style and thought. It is a beautiful and elaborate exposition of the philosophy of medicine, as connected with the modus operandi of remedial agents. The following extract may serve to show the ground taken by the professor in relation to this intricate but highly interesting subject:—

> "In some of the writings which I have had the honor of laying before the public, I have endeavored to show that the susceptibility of the nervous power to the action of physical and moral causes, and its liability to modifications, opens to us the whole philosophy of remote sympathy in connection with pathology and therapeutics; that it opens to us the whole philosophy of the operation of morbific and remedial agents upon organs that are remotely situated from the direct seat of their application. I do not, therefore, recognize the prevailing doctrine of the operation of morbific and remedial agents by absorption, nor does any part of the humoral pathology receive from me any quarter. They are doctrines of the dark ages, and were well enough, perhaps, for those times. They save, it is true, a vast amount of thought and labor, and appear to hold their advocates in that happy state of ignorance which the poet is disposed to consider better than wisdom. He would have us believe that 'where ignorance is bliss, 'tis folly to be wise.' This may do for the mechanical physician—for one whose medical facts and reasoning begin and end with drugging corrupted blood. But will it answer as well for his patients? Ask the victims of the whole horde of empirics; for these practitioners hold the same theory, and are guided by exactly the same principles.
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> "Nothing short of an enlightened and comprehensive view of nature, in all her departments, can constitute an able practitioner of medicine. Where one department engrosses the attention, all others are brought hypothetically within that limited compass. It is like cultivating one property of the mind at the expense

of the rest. The poet thinks differently from the man of enlightened judgment,—the lawyer is prone to sophistry and scepticism,—the mathematician is wrapt in abstract truths and deficient in practical business. The history of nature is nothing to the chemist out of his laboratory. In physiology he is like the astrologer amongst the stars."

But we must refer the reader to the lecture itself, as its best and only adequate exponent.

Art XXIII.—*The Chemistry of Man.* By Dr. J. Franz Simon. Translated by Thomas E. Day, M.A. and L.M., Cantab., Licentiate of the Royal College of Physicians. To be complete in two parts Part I. Phil.: Lea & Blanchard. 1845. 8vo., pp. 292.

Regarding this as decidedly the most useful work yet issued by the Sydenham Society, we shall aim in our next Number to give a somewhat extended analysis of its contents. At present we can only remark that the first volume is chiefly devoted to researches on the blood in a state of health and disease, including, of course, the theory of respiration, the production of animal heat, the chyle, lymph, &c. We have also a succinct account, in the first chapter, of the mode of prosecuting the proximate analysis of compound animal substances, and the characters by which these may be distinguished from each other.

The merits of the work are so universally known and acknowledged, as to need no further commendation at our hands.

Art. XXIV.—*A System of Surgery.* By J. M. Chelius, Doctor in Medicine and Surgery, Public Professor of General and Ophthalmic Surgery, in the University of Heidelberg, etc., etc. Translated from the German, and accompanied with additional notes and observations, by John F. South, Surgeon to St. Thomas' Hospital. Edited with further additions, by George W. Norris, M.D., Surgeon to the Pennsylvania Hospital. Phil.: Lea & Blanchard. Part I., pp. 132.

Judging from a single number only of this work, we have no hesitation in saying that if the remaining portions correspond at all with the first, it will be by far the most complete and scientific system of surgery in the English language. We have, indeed, seen no work, which so nearly comes up to our idea of what such a production should be, both as a practical guide, and as a work of reference, as this; and the fact that it has passed through six editions in Germany, and been translated into seven languages, is sufficiently convincing proof of its value. It is methodical and concise, clear and accurate; omitting all minor details and fruitless speculations, it gives us all the information we want in the shortest and simplest form.

Art. XXV.—*Commentaries on the History and Cure of Diseases.* By William Heberden, M.D. (The Select Med. Library and Bulletin of Medical Science.) Edited by John Bell, M.D., &c. Phil.: Barrington & Haswell. 8vo., pp. 212.

All who admire sound clinical knowledge; all who wish to obtain unadulterated facts collected at the bedside, and untinctured with speculation or theory, will not fail to avail themselves of this masterly production of the renowned Heberden. It is a classic in modern medical literature, scarcely inferior to that of Celsus among the ancients; indeed it was originally (1782) written in Latin, and afterwards rendered into English. As a work on practical medicine, embracing a very wide range of disease, it will not suffer by comparison with the best treatises of modern times.

Art. XXVI.—*Summary of the Transactions of the College of Physicians of Philadelphia*, from May to Oct., 1845, inclusive.

The Philadelphia Medical Society has stated monthly meetings, at which important papers are read and interesting discussions take place, and at the end of every six months the proceedings are published in a goodly sized pamphlet, for distribution among the members, as well, we believe, as for general circulation. This plan is an admirable one, and one which we have long desired to see adopted by the Medical Society of this city. We should like, at any rate, to see an effort made to resuscitate our Society, and we would respectfully suggest to the officers and members whether this is not an auspicious time to make the attempt. We believe the elements exist in its organization, which, if properly encouraged, would result in great prosperity and usefulness. To whom does it belong to make the first move? One of the most interesting articles in the Transactions of the Philadelphia Society, is the "Annual Report on the Theory and Practice of Medicine," by Dr. S. Jackson, formerly of Northumberland. But our narrowing limits preclude any extracts.

Foreign Medical Intelligence.

PART THIRD.

ANATOMY AND PHYSIOLOGY.

1. *On the Effects of Food on the Blood.*—Dr. Buchanan has drawn the following conclusions on the state of the blood after taking food:—

1. The serum of the blood of a healthy man fasting, is perfectly transparent, and of a yellowish or slightly greenish tint. 2. A heterogeneous meal, such as that usually set on the tables of the rich, renders the serum white. 3. The whiteness may commence as early as half an hour after eating, and may continue ten or twelve, and sometimes as long as eighteen hours, according to the kind and quality of the food, and the state of the functions of the primary and secondary digestion. 4. *Starch*, and *Sugar*, probably all vegetable substances destitute of oil, give no whiteness to the serum of the blood. 5. *Fibrin*, *Albumen*, and *Casein*, and probably *Protein-compounds* in all their forms, if destitute of oil, give no whiteness. 6. Oils combined, whether naturally or artificially, with protein compounds or with starch, render the serum of the blood white; probably, therefore, oils produce that effect in whatever way taken. 7. Gelatin seems to render the serum of the blood white; this, however, cannot be considered as certainly established, as there may have been some fat in the beef-tea which was taken along with the calf-foot jelly in both experiments on which the above conclusion rests. 8. The coagulum of the blood very frequently exhibits, after taking food, a crust of pellucid fibrin, or of pellucid fibrin dotted with more opaque particles, and with little of the contraction technically named "cupping." 9. The appearances of the coagulum just mentioned are much more common after azotized than after non-azotized food.

These conclusions relating to the visible characters of the blood may be considered, with the single exception above mentioned, as well established. The conclusions which follow relate chiefly to the chemical properties of the blood, and are not worthy of the same reliance; but the evidence on which they rest has been laid before the reader, and he must judge of them for himself.

1. The substance defined above under the name of Pabulin, is most abundant in the blood a few hours after taking food, sooner or later according to the rapidity of digestion. 2. It is less abundant as the time when the food has been taken is more remote, and is small in quantity after a fast of twenty-four hours. 3. It is much more abundant after azotized, than after non-azotized food. 4. It varies in quality, floating or subsiding, according to the kind of food taken. 5. It is probably analogous in nature to the white substance which gives color to the serum of the blood. 6. The difference between these two forms of this substance probably is, that it is sometimes combined with an alkaline, or earthy salt (chloride of sodium, sulphate of soda, &c.), and sometimes with an oily body (stereate of glycerine, &c). In the former case it seems to dissolve completely in the blood, while in the latter it is only partially dissolved, and renders the serum opaque. 7. The azotized principles of the food are probably made to combine, in the digestive tube, with the alkaline, earthy, and oily salts mentioned above; and thus become capable of being absorbed into the blood. 8. The alkaline and earthy compounds are probably absorbed directly by the blood-vessels, while it seems to be well ascertained that the oily compounds are absorbed through the lacteals.—*London Medical Gazette, Oct.* 10, 1845.

MEDICAL PATHOLOGY AND PRACTICAL MEDICINE.

2. *Antagonism of Pulmonary Phthisis and Intermittent Fever.*—At the scientific congress of Lucca this subject was warmly discussed, without any satisfactory result having been arrived at. Dr. Salvagnoli presented a series of cases, accompanied by a statistical table, tending to show that in the Maremma district of Tuscany, where intermittent fevers are numerous, pulmonary phthisis and scrofula are but rarely met with. This pathological fact he endeavors to explain in the following manner:—If we admit, says he, a physiological antagonism between the liver and the lungs, which most physiologists do, it is easy to understand why phthisis should be rare where intermittent fever is common. Malaria acts principally on the abdominal viscera, increasing their action and volume. This increase of abdominal vitality diminishes the vital actions of the lungs, and thus prevents the development of tubercles in their tissue. Dr. Renzi criticised Dr. Salvagnoli's statistical table, and remarked that in marshy districts the number of individuals who arrive at a favorable age for the development of pulmonary phthisis is relatively smaller than in more favored localities, and that consequently a calculation established only on the number of deaths from phthisis in such localities could not be exact. If the generations disappear during childhood—if the medium age, which is thirty years, is infinitely less in marshy districts, it becomes evident that more persons will die from the inflammatory diseases of early life, and fewer from chronic affections. Dr. Griffa confirmed the observations of Dr. Salvagnoli respecting the rarity of phthisis in the Maremma. Dr. Rino, on the contrary, maintained, from observations made at the clinique of Pisa, that phthisis was common in marshy countries. These views were also supported by Dr. Turchetti, who asserted that in the marshy districts of Fucecchio and Bientina he had remarked the antagonism which was described by Dr. Salvagnoli as existing in the Maremma. Dr. Trompeo stated that he had great opportunities of observation in Piedmont, where malaria was kept up by the rice-grounds, and in Sardinia, where intermittents are extremely frequent and severe, and that in both these countries he had found phthisis very rare wherever intermittent fever was common.—*Bulletin of Medical Science*, 1844.

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3. *Rapid Death from Oxalic Acid.*—Dr. Ogilvy, of Coventry, has communicated to the Lancet a case of poisoning by oxalic acid, in which it is probable that death took place within *three minutes* after the poison had been swallowed. The sister of the deceased had been absent from the room about that period, and on her return found her dying. The quantity of poison taken could not be determined. The only other remarkable circumstance in the case was, that the coats of the stomach were so softened, that on an attempt being made to remove the organ, they were lacerated by the weight of the contents. This was probably a chemical action post-mortem. The intestines and left lobe of the liver were also found softened, as if by transudation. We believe this to be the most rapidly fatal case on record."

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4. *Discharge of ten Lumbrici through an Abscess in the Right Thigh.*–M. Combe narrates the following remarkable case:—A healthy married woman, aged 36, mother of four children, became attacked with severe pain in the abdomen, accompanied with an erysipelatous redness over the hypogastrium; she had also the symptoms of a catarrhal fever which was at that time epidemic. The pain and erysipelatous redness disappeared on the third day, but on the following morning a painful swelling presented itself in the right inguinal region, and was attended with redness occupying the whole front part of the thigh. The patient had shivering, vomiting of green matter, a small frequent pulse, red tongue, dark-colored urine, pain in the head, sleeplessness, and dilatation of the pupil. She complained of burning pain in the thigh, attended with a sensation as of some foreign body crawling about in the neighborhood of her groin. There was constipation from the commencement of the attack, the patient refusing to take purgatives. On the 12th day an abscess formed on the upper and inner part of the thigh, about four fingers' breadth below the fold of the groin; this was cov-

ered with a soft poultice, and shortly burst, discharging a large quantity of stercoraceous matter, having a most intolerable stench. Very shortly a whitish body presented itself at the opening of the abscess, which turned out to be a lumbricalis worm (*spulwurm*). Upon applying slight pressure to the abscess this creature was evacuated, and followed by nine others of the same kind; they measured from 12 to 27 centimètres (or from 5 to 10 inches) in length; they were alive, but very soon died. A purgative was now taken, and followed by a fæcal evacuation per anum, together with the discharge of a large lumbricalis by the same passage. In less than a month afterwards the patient was perfectly recovered. M. Combe considered that the presence of these worms excited intestinal inflammation, which led to perforation.—*Schmidt's Jahrbücher*, Heft 3."

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5. " *On the Therapeutic Action of Arsenic.*—M. Boudin, senior physician to the Military Hospital at Versailles, made the following communication:—After having for a considerable period taken arsenic myself, and thus convinced myself of its safety in therapeutic doses, I, during the last five years, administered arsenic to 2947 patients of various ages, and obtained the most satisfactory results from its use, without the slightest inconvenience referable to the arsenic having occurred in any one case.

" Most of those patients were affected with marsh fevers of various types; upwards of 2000 of them had been previously treated with sulphate of quinine from one to ten times; and nearly 500 of the number had previously taken, without any benefit, more or less considerable quantities of sulphate of quinine.

" Those patients were not selected; arsenic was administered to all without distinction. Neither was the medicine given at any particular season, but I observed that it was necessary to exceed the mean dose in the summer. The medicine has further been administered in various latitudes, always on a large scale, and to patients from almost every part of the world—Senegal, Algiers, America, Syria, Italy, Corsica, the Delta of the Nile, the Rhone, &c. The result has been, that for five consecutive years, I have never had to administer sulphate of quinine in a single case.

" The duration of the treatment has been generally short; the fever has seldom resisted the first or the second dose of arsenic; relapses have been extremely rare—a circumstance which, however, I chiefly attribute to the febrifuge having been continued for eight or ten days after the cessation of the accesses.

" Comparative experiments have led me to reject all the arseniates, and employ arsenious acid exclusively. The solutions of Fowler and of Pearson take too long to prepare, and it is difficult—nay, even dangerous—to adjust their doses properly; I have therefore substituted for them a solution of one grain of arsenious acid in a pint of water.

" It is unnecessary to add opium to this solution; the great division of the medicine by the large quantity of vehicle, is the best guarantee against its irritating action. A fifth part of the above solution contains the *fifth* of a grain of arsenic, and is the medium dose. It should be administered three hours before the calculated period of the access of fever. If the antecedents of the case raise the presumption that the fever is obstinate, two other doses should be previously administered, with an interval of two hours between each. I, for a long time, gave at Marseilles as the mean dose of arsenious acid, one or two *hundredths* of a grain of arsenious acid, and this is the dose still administered by many physicians in the south of France, and especially by some of the professors at Montpellier. I now prefer the above mentioned dose of one-fifth of a grain. It has been objected to the use of arsenic that it is a poison! Three hundred years have elapsed since Paracelsus answered—'Arsenic cures because it is a poison.' Moreover, sulphate of quinine is also a poison, but nevertheless it is one of our most valuable medicines. 'But arsenic kills in a very small dose.' Be it so; but why give doses of it which kill, when it is easy to give it in quantities that cure? Besides, other medicines, as strychnine and corrosive sublimate, &c., kill in smaller doses than arsenic does; but where is the practitioner who dreams of not prescribing them? It has been said that arsenic causes, or tends to cause, visceral enlargements, &c. This fable may be excused in persons who have no experience of its administration. It has been also objected that arsenic does not cure in every season of the year; but this is not the case unless it is administered always in one invariable dose, and above all, unless the practitioner neglects to treat decidedly, and at its commencement, those affections of the digestive organs which constitute one of the most frequent complications of ague. Finally, it is said that arsenic is useless, as quinine *always* effects a cure. It is needless to enter on a serious refutation of this mistake. Ramazzini, Baker, and J. P. Frank, have recorded epidemics which were quite refractory to bark—for example, those of 1680, 1781, and 1787. But even if bark did cure always, its high price places it beyond the reach of the poorer classes."—*Dub. Med. Press, Sept.* 24.

OBSTETRICS AND DISEASES OF FEMALES.

6. *Dr. Francis Adams* has published a very interesting letter on the "Nature and Treatment of Floodings after Delivery," in a recent Number of the London Medical Gazette, in which he sustains the following positions:

"1. That the doctrine generally taught, namely, that in floodings after delivery the blood escapes by exudation from the placental vessels of the uterus, is founded on a mistaken hypothesis regarding the construction of the placenta; while the symptoms of the case which were supposed to uphold the doctrine of uterine torpor, that is to say, the flaccidity of the womb when felt externally, and its distension and relaxation as discovered by the introduction of the hand, are to be regarded as the effects, and not the causes of the flow of blood.

"2. That all the phenomena of the case are satisfactorily accounted for upon the supposition that the hemorrhage proceeds from lesions which are proved to be of no uncommon occurrence, about the uterus and perinæum after delivery, but that analogy would lead to the conclusion that they sometimes proceed simply from violent action of the uterine exhalants.

"3. That there is no reason from analogy to suppose that blood would flow from an organ or member, merely because it is in a relaxed state, provided it had sustained no solution of continuity.

"4. That it has been demonstrably proved that contraction of the uterus is no safe-guard against flooding, and that flooding is not necessarily the consequence of non-contraction after delivery.

"5. That the facts and circumstances connected with the Cæsarean operation, and the removal of the placenta in inertia of the womb, militate strongly against the established opinion, that flooding is apt to arise from the non-contraction, or sudden emptying, of the womb.

"6. That, beyond all dispute, instrumental and precipitate deliveries are those in which floodings are of most frequent occurrence; and it is well ascertained that lacerations are common in both these cases.

"7. That the introduction of the hand into the uterus, with the intention of stimulating the organ, or of compressing the bleeding point, is a practice highly dangerous, tending to produce increased determination of blood to the part, syncope, and convulsions; and that the only circumstance which could justify the most gentle modification of this practice is the existence of a coagulum in the vagina or womb.

"8. That, agreeably to my own experience, laying the head low, exposing her to a current of cool air, applying cold cloths to the parts, with small doses of opium and gentle compression of the abdomen, are means which will rarely fail to arrest the flow of blood; but that in extreme cases it may be warrantable to try to ascertain the situation of the bleeding point, and secure it by surgical means.

"9. That, as far as can be ascertained, fatal results under this mild system of treatment in former ages were of much more unfrequent occurrence than they have been under the harsh mode of treatment pursued for some time past.

"Finally, that the flooding which follows delivery has none of the characters of a passive hemorrhage, as has been generally thought of late, but is to be referred to the class of active hemorrhages, and treated upon the principles applicable to them."—*London Medical Gazette, Aug.*, 1845.

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7. *Placenta Prævia.—Medical Society of London.*—Mr. Crisp inquired the experience and opinions of members in respect to the new practice in placental presentations, as advocated and practised by Drs. Radford, Simpson and others. He thought the evidence and statistics adduced on this point went to show the superiority of this over the old routine practice. In all the cases detailed, the hemorrhage ceased immediately after the removal of the placenta. He observed he should follow the practice recommended in the next case that came under his care.

Mr. Hadland considered the practice in question as a dangerous innovation. The established practice was the safest and best to follow. In placental presentation, turning the child was by no means difficult, nor was the proceeding of passing the hand by the side of, or through the centre of the placenta, according to circumstances, a frequently fatal proceeding. It was not prudent, in these cases, to wait for the unassisted efforts of nature for the expulsion of the child, as recommended by Drs. Radford and Simpson, after the entire removal of the placenta, as the uterus, of course, could not contract, under these circumstances, on the mouths of the open vessels.

Dr. Chowne said, that although the practice had been strongly advocated by persons whose opinions were of great weight in the profession, and although cases apparently calculated to prove the propriety of it had been cited, he had not been induced to change his own mode of proceeding in such cases, nor did he expect that the plan of treatment under discussion would supersede that which had for many years had the sanction of the profession. He considered it necessary to recollect that, under the one and same designation (placental presentation) ought to be included cases combining different sets of circumstances, each suggesting a different treatment; as, for example, the medical man might find the placenta detached and in the vagina, in which case he would at once promote the entire removal of it; or he might find the placenta so placed that part of it extends over the os uteri detached, the other part adhering; the labor pains may be vigorous and frequent, giving the assurance that the delivery would proceed favorably, and that the child, in its progress, would, by pressure, arrest the hemorrhage. Such cases not unfrequently occur, and the whole process of parturition proceeds as in ordinary cases, and ends well. In other cases, the placenta may be similarly placed, and hemorrhage be going on, but without pains. Such is a case in which the question of whether to adopt the plan of detaching and removing the placenta first, or whether to turn, would arise. He still considered that in such a case it would be proper to adopt the latter mode. It was true that many cases were detailed in which separating the placenta, and bringing it away, had been followed by the cessation of hemorrhage, and the safe delivery of the patient; but he did not think that the practice must be considered essentially proper and safe merely because the dangers to which it was liable had not occurred. He considered that the greatest degree of safety would be given to the mother by adopting that practice which would afford to the uterus the earliest possible opportunity of contracting, with the least possible disturbance of that portion of the placenta which remained undetached. Cautiously introducing the hand, and turning, he regarded as most likely to accomplish these objects. Of the success of that practice his own experience had afforded him entirely satisfactory proof, and he felt assured, that such practice, if not too long deferred, would in the aggregate be followed by the happiest results. He did not consider that in pursuing the opposite plan we could calculate upon there being anything in the mere separation of the placenta from the uterine surface, that would arrest the hemorrhage; that arrest must depend on the contraction of the uterus; and over the process of contraction we have, comparatively, no control. It is true, that labor having once commenced, it generally proceeds, and the desired contractions taking place, the vessels which had bled ceased to bleed, and all ends well. And, moreover, in many instances, a moderate degree of contraction will be enough to close the bleeding vessels. The cases that had been adduced in favor of separating the placenta were, in most part, such as these, but it was not enough to inquire, whether a practice is correct with regard to any *one* of a series of events, without considering also what may be the some *other* or *others* of the series; removing the placenta, for instance, might have a successful issue, where labor in all other respects but that of the malposition of the placenta is healthy and prosperous, and may therefore seem to be the proper proceeding, but it is necessary to inquire, whether the same result would have followed had there been not one difficulty only, but two or more difficulties; as, for instance, a relaxed habit, deficiency of power, and absence of pains, when, after the removal of the placenta, the uterus does not act favorably, but is dilating and inactive? Under these circumstances, the removal of the placenta will have laid bare the orifices of more bleeding vessels, while the retention of the child in utero, and the absence of pains, would conspire to prevent that contraction on which the patient's safety depends. However true it may be that in ordinary cases of hemorrhage after the birth of the child, when the placenta remains and is adherent, cessation of hemorrhage generally follows removal and separation of the placenta, yet there are many exceptions to this rule. On the whole, Dr. Chowne, considering that to be the best practice which constituted the best safeguard in the event of unfavorable after-events, continued at present to prefer, as a general rule, when hemorrhage was proceeding, in cases such as those to which the discussion referred, the removal of the child from the uterus, leaving that organ free to contract, and to reduce itself to the utmost possible extent, with the least possible loss of time.

Mr. Dendy agreed in the main with the observations of Dr. Chowne, and thought the practice recommended by Drs. Simpson and Radford should not be followed. Turning was easy in cases of placental presentation, after the hand had been introduced on one side of or through the placenta. He related a case, however, in which, after passing his hand through the placenta, the head immediately descended, hemorrhage ceased, and delivery was easily effected.

Dr. G. Bird said, that the question of practice rested on two points. It appeared that after turning, according to the old plan, a very small per centage, indeed, of children, were born alive, and that in the new plan, as soon as the placenta was removed, hemorrhage ceased. If these facts were admitted, the new practice would be the best. He knew two very experienced accoucheurs who were in favor of the new mode of proceeding.

After a few words from other members the Society adjourned.—*London Med. Gaz., Oct.* 10.

PATHOLOGICAL, THERAPEUTICAL AND OPERATIVE SURGERY.

8. *Case of Gun-shot Wound terminating fatally.* (Reported by Dr. Potter of London.)—On the evening of the 20th of May, Mr. Seton received a gunshot wound across the lower part of the abdomen, the ball entering into the upper part of the right thigh, a little above and in front of the great trochanter of the femur, and passing out about the middle of the fold of the left groin. The hemorrhage was very rapid, and described as florid, issuing in a large stream and per saltum from both wounds, and as rising, when uncontrolled, in a jet to the height of two or three feet from the wound in the right hip. No surgeon being then present, attempts were made to arrest the hemorrhage by pressure over the wounds, and by the application of a ligature round the upper part of the right thigh. Ultimately the patient fainted, and the hemorrhage ceased; not, however, before apparently a large quantity of blood was lost.

When first seen by Mr. Jenkins, the patient appeared almost lifeless; but the bleeding had quite ceased, and stimulants gradually restored the circulation to a certain extent. The wounds were simply dressed, and warm applications, in the first instance, made use of as most soothing and grateful to the feeling of the patient. The following day the temperature of the surface became more natural, the pulse increasing in rapidity and somewhat in strength. The track of the ball was marked by an elevated ridge, from one opening to the other, and some ecchymosis of the skin extended from this line over the lower part of the abdomen and scrotum. The patient suffered great pain in the groin and right lower limb generally, accompanied with a sensation of numbness of the front of the thigh, and partial loss of power over the muscles of that part of the limb. At a subsequent period, the application of iced water and bladders of ice to the right groin gave some relief.

In the course of the next few days little change occurred; but on the 27th (the seventh day after the receipt of the injury), the swelling over the track of the ball appeared more evident in the right groin, and was here observed, for the first time, to pulsate with each stroke of the heart. During the two following days this pulsation became gradually stronger, the swelling itself increasing in prominence and superficial extent; and though the increase was not very rapid, yet it appeared greater on the 29th than during an equal period of time on the 28th. The patient did not experience any rigors.

On the evening of the 30th of May the case was first seen by Mr. Liston, and the question as to the necessity for surgical interference (already suggested) came to be discussed. The state of the case was then as follows:

The patient had all the appearance of a person who had lost a considerable quantity of blood, his skin being blanched and waxy, and his pulse rather quick and feeble. Although he suffered at times severe pain in the limb, there was no marked expression of anxiety in his countenance; his manner was calm and composed; and as he kept perfectly quiet in bed, he felt his strength improving, and seemed hopeful as to the final result. On examining the wounds, that on the right hip (the opening of entrance) was found circular, filled with a dry, depressed slough, and having a narrow, faint blush of redness round its margin. In the left groin the opening of exit of the ball was marked by a jagged slit, already partly closed by a thin cicatrix. There was extensive mottled purple discoloration (ecchymosis) of the skin in both groins, and over the pubes, scrotum, and upper part of the right thigh.

In the right groin was found a large, oval, visibly pulsating tumor, its long diameter extending transversely from about an inch and a half on the inner side of the anterior superior spinous process of the ilium to about opposite the linea alba, and its lower margin projecting slightly over Poupart's ligament into the upper and inner part of the thigh. On handling this tumor, it appeared elastic but firm, very slightly tender, and not capable of any perceptible diminution in bulk by gradual and continued pressure. The pulsation was distinct at all parts of the swelling, and was equally evident whether the fingers were pressed directly backwards, or whether they were placed at its upper and lower margins, and pressed towards the base of the tumor, in a direction traversing to its long axis, the parts being for the time relaxed.

The femoral artery was slightly covered by the swelling, and the pulsations of that vessel were with some difficulty distinguished in the upper third of the thigh, below the margin of the tumor. This appeared to depend partly on the natural obesity of the patient, and partly on a considerable degree of general swelling of the thigh. No pressure on the femoral artery or over the abdominal aorta arrested the pulsation in the tumor, and pressure in the former situation was attended with severe pain.

In the left groin, just above the opening of exit, was another smaller swelling, quite unconnected with, and of a very different character from, the principal tumor. The skin over the smaller swelling was red, very tender, slightly pitting on pressure, hard round the margin, but yielding more in the centre, and even indistinctly fluctuating. The right testicle was enlarged to three or four times its natural size, extremely hard, and somewhat tender.

Diagnosis.—From the examination of the parts, it was inferred in the first place, that the tumor was formed of extravasated blood confined under the cellular tissue and fascia of the groin; and secondly, that its pulsation was owing, not to motion transmitted from the femoral artery (beneath its outer margin), but to an open and direct communication between a wounded artery and the fluid or semi-fluid contents of the tumor; in short, that the case was one of circumscribed false aneurism.

Beyond this the diagnosis was unsatisfactory, owing to the difficulty in estimating the thickness of the superficial layer of fat in the abdomen and thigh, and consequently in determining the precise course of the ball through the soft parts. With regard to the probable course of the ball and the artery wounded, it was supposed, from the general direction of the discolored track and the relative position of the two openings, that the bullet had passed through the tensor vaginæ femoris and behind the sartorius, perhaps wounding or bruising the anterior crural nerve, and dividing some branches of the external circumflex artery; that it had then passed in front of the common femoral artery (close to its commencement from the external iliac), either slightly wounding the main vessel, or dividing one of its branches near its origin; and lastly, that it had wounded or bruised the right spermatic cord, and run over the pubes to the opening of exit.

Prognosis.—As the blood appeared fluid, the tumor pulsated very forcibly, and the strength of the circulation was gradually being restored, it was thought probable that the effusion, if left to itself, would continue to increase, as it had since its first appearance; that when the sloughs should separate from the external wound, or wounds, renewed hemorrhage might occur, and would, in that case, and in the present weakened state of the patient, in all probability prove fatal; that even supposing no external bleeding to occur, as the extravasation was only limited by the superficial membranous structures of the abdomen, an additional quantity of blood might be poured out at any moment (from slight motion of the part, or any unusual exertion), and spread itself upwards, and laterally, like urine effused from ruptured urethra; and lastly, that, in either case, the effused blood would, to all purposes, be lost to the system, and the patient, weakened by its loss, would have to bear up against profuse suppuration, after the closure of the injured vessel by ligature or otherwise.

Mr. Liston having been summoned from London, decided on applying a ligature to the external iliac artery, which was done as follows:

The patient having been placed on a table in a good light, an incision was made through the skin, commencing just above Poupart's ligament, rather nearer its outer than its inner termination, and continued upwards and a little outwards. A layer of from one and a half to two inches of subcutaneous fat, and the external oblique muscle, having been cut through by successive strokes of the scalpel, another thick layer of yellow lobular fat projected into the incision, hiding completely the internal oblique muscle, and looking at first somewhat like the omentum. This layer of fat, the internal oblique and the transversalis muscles were then cut through cautiously, and to a limited extent, until the thin transversalis fascia just appeared. This was readily torn through, and the finger being introduced beneath, it was lastly divided to the full extent of the external incision by means of a curved probe-ended bistoury carried along the finger as on a director. The sub-peritoneal cellular membrane thus exposed, proved to be so loaded with adipose tissue, and consequently so firm and solid, that it was easily separated from the face of the fascia iliaca; and for the same reason, the peritoneum and intestines were more readily and completely held aside than is usual in this operation. At the bottom of the deep wound thus formed were seen, first, the iliacus muscle under the fascia, and then the psoas and the genito-crural nerve; but at first nothing was visible of the external iliac artery, nor could it be felt in its usual situation, close against the margin of the psoas. The fact was, that the vessel, adhering more closely to the subperitoneal cellular tissue than to the other parts, was drawn with it slightly out of its course; and turning the ball of the finger inwards towards the cavity, instead of towards the brim of the pelvis, its pulsations were felt distinctly. The external iliac was now a little more exposed, a common aneurism needle passed under it, and a strong twisted silk ligature carried round; but before this was tied, it was ascertained that when the vessel was pressed against the curve of the needle, the pulsation in the tumor was completely arrested.

The operation being completed, the wound was brought together by four points of interrupted suture and strips of isinglass plaster. The right foot, leg, and thigh, were enveloped in lamb's-wool and flannel, and the limb elevated on an inclined plane of pillows, so as to favor the return of blood as much as possible, and prevent venous congestion.

The patient died June 2d, about twelve days after the accident. It was found on dissection that the ball passed altogether in the subcutaneous fat; that it did not pierce the fascia lata; and that the only vessel wounded, and forming the false aneurism, was a superficial branch of the femoral artery. This vessel was divided close under Poupart's ligament, and nearly an inch from the main trunk, its divided extremity being perfectly open. The blood effused and forming the main tumor was coagulated (forty-three hours after death). There were several pints of sero-purulent fluid in the cavity of the peritoneum, and several "patches of inflammation" on parts of that membrance covering the large and small intestines, and the parietes of the abdomen near the wound made for the application of the ligature. This wound had a sloughy appearance, and was filled with a thin purulent discharge. The artery had been tied about the middle of its course, and was but little separated from surrounding parts. There was no coagulum in it, either above or below the ligature. The vein was sound and healthy. There was a small abscess in the left groin, in the situation of the smaller swelling already mentioned, and there was a collection of blood in the cavity of the tunica vaginalis. The cord was not divided, but blood was extravasated in patches along its course.

Upon the foregoing, the editor of the *Lancet* observes:

Our readers will find a very able and interesting account, by Mr. Phillips Potter, the surgeon who accompanied and assisted Mr. Liston—of the important catastrophe at Gosport, that has lately so much occupied the public attention. Gunshot wounds nearly always present great interest, from the endless variety which they offer; but that which the late Mr. Seton received possesses peculiar claims to the notice of the surgeon, owing to the unparalleled nature of the lesion, and to the great difficulty of the treatment; it therefore well deserves to be put on record. The plain unvarnished narrative of Mr. Potter places in a very prominent and favorable light the surgical skill of Mr. Liston. Severe as was the operation which he performed, yet it was evidently the only available resource. The subcutaneous hemorrhage had increased to a great extent within the preceding twenty-four hours, and was still increasing. Pressure was totally inapplicable, the nature of the injury not admitting of its being resorted to; indeed, the ligature of the main arterial trunk above the lesion was the only chance for the patient. Amongst the surgeons in attendance there was no difference of opinion relative to the treatment to be adopted, and the operation, which had become imperatively requisite, was executed by Mr. Liston with his characteristic ability.—*Dub. Med. Press, July* 2, 1845.

MISCELLANEA.

9. "*The Potato Disease.*—Mr. Erasmus Wilson writes to the editor of the Times to announce that the real cause of the destructive changes at present taking place, appears to be the unripeness of the tuber, and the consequent imperfection in the elaboration of its juices. When examined with the microscope, the substance of the potato is found to be not more than one-half filled with starch-cells, many of which are incomplete, the remaining portion of the cell being occupied by water. Hence the actual condition of the potato may be stated as follows:—First, deficiency of starch; second, imperfection in the tissue of the cell-walls; and, third, excess of water, to which may possibly be added, imperfectly elaborated starch. As a consequence of the imperfection of the tissue of the cell-walls, and its state of maceration in a superabundance of water, it falls speedily into decay, the change beginning at the surface and proceeding inwards, and being indicated by a brown discoloration of the cells. The starch-cells, which are at first unaffected, are soon enclosed in the decayed cellular tissue, and becoming involved in the decay, are thereby destroyed.

"Mr. Herapath has recommended that the potato should be reduced to pulp, and the starch extracted by the usual process of washing. We agree with Mr. Wilson in thinking that, according to this plan, *le jeu ne vaut pas la chandelle.* The process which he himself recommends for the preservation of the nutritious matter is simple and practical; to dry the potatoes in an oven or kiln at a moderate temperature, and thus drive off the excess of water which they contain, the water being a chief agent in the decomposing process. This method of drying the pulp of the potato, so as to render it fit for food in all climates and capable of preservation, was some years since the subject of a patent in this country. The dried pulp is a hard translucent substance of a yellowish color and inodorous, until placed in warm water, when it swells up and acquires the usual smell and other properties of the potato. If the dried pulp be just covered with boiling water, this is entirely absorbed, and in a few minutes the vegetable is rendered fit for food. We can answer from personal experience that the potato pulp thus treated, is almost as palatable, and quite as well adapted for domestic use, as the recent tuber. We believe that a large quantity of this dried pulp of the potato was used in the late unfortunate Niger expedition: and to those going long sea-voyages, it is invaluable.

"From what we have heard we are inclined to believe that the extent to which the destruction of the potato prevails, has been exaggerated. It has been attributed to the excessive use of guano and other animal manures, but this theory has originated with those who are anxious to find an immediate cause for every unusual occurrence. We have been credibly informed that the destruction has equally gone on in crops where no guano or other stimulating animal manures had been used. Indeed, the prevalence of the 'blight,' as it is termed, in Germany, Belgium, England, and it is now said in Ireland, points to some very general cause; *i. e.*, the long absence of sunshine, with a very low temperature and abundance of humidity during the greater part of the summer. In a communication to a late number of the Pharmaceutical Journal, Dr. A. Ure states that, in his opinion, the disease may be ascribed to some electrical influence; for he found the roots of a portion of one row sound, while those of a contiguous one, in the same circumstances, were diseased. According to this gentleman, 100 parts of the damaged potatoes lose 77 to 78 per cent. (water) by being dried in a gentle steam heat;—whereas 100 parts of sound potatoes lose only 75 parts upon an average, yielding 25 per cent. of solid matter, the greater part of which is starch. Dr. Ure states that the damaged potatoes, after being boiled in an abundance of water, and well drained, have been found to fatten pigs very well, and to cause no indisposition in these animals."—*Lond. Med. Gaz., Oct.*, 1845.

10. *African Fever.*—"In our last number we referred to the arrival of a vessel from the coast of Africa, having on board a disease represented to be the African fever, which had caused great mortality among the crew. No less than fifty-six persons had died, including the two medical officers.* We expressed no doubt that immediate relief would be afforded by Government to the survivors, who were thus left in a most helpless condition; but it appears that the excessive fear of contagion, caused the strictest quarantine to be observed, and in the first instance the plan adopted by the Lord Mayor and Aldermen in the great plague of London, in 1665, was enforced, *i. e.*, the healthy were compelled to remain shut up with the diseased. We confess we were hardly prepared for this mode of dealing with a fever-stricken ship in the nineteenth century; for even admitting the contagious nature of the malady, methods would have easily suggested themselves for immediately separating the diseased from the healthy, and removing the whole of the survivors from the pestilential atmosphere in which they were confined.†

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* The total number of deaths up to the present time (Oct. 8), out of a crew of 146, is 66, including three persons who have died within the present month.—*Report.*

† The delay in adopting measures of isolation was, we understand, occasioned by the absence from town of the chief Quarantine Officer, at the time the intelligence was received. It is to be regretted that there is not a medical officer at all our great naval stations empowered to act *immediately* in such emergencies.

"We have probably never before had the African fever brought so near to our coasts as in this instance; and it may be worth while, therefore, to inquire into a few circumstances connected with it. The most accurate observations which have been made on this formidable malady, are those of Dr. M'William and Dr. Pritchett, who accompanied the late Niger expedition. From the account given by Dr. M'William, we learn that all who composed the expedition were exposed to the same influences, and nearly all were attacked with the fever. Two only of the four medical officers who died, had been in attendance on fever patients! Dr. Pritchett, Mr. Thomson, Mr. Stirling, and Dr. Stanger, were among the few who escaped being seized with fever, although they were in constant intercourse with the sick, and Dr. M'William himself was the last person in the Albert who was attacked. The nurses on board this vessel were among the latest taken ill, and one escaped altogether. In short, there was no fact which came under the observation of this experienced medical officer, which afforded the slightest evidence that the disease was communicated from one person to another.

"These facts appear to show clearly that the malady must have owed its diffusion to endemic influence, and not to contagion. It is well known that in the equipment of these vessels special provisions were made not only for ensuring a free circulation of air below decks, but also as far as possible for purifying it or of depriving it of noxious matters. There is, however, good reason to believe, from the fatal progress of the disease, that these had no influence in counteracting the effects of the endemic poison. We learn from Dr. M'William's account, that some circumstances were actually favorable to the propagation of fever by contagion:—the upper deck was much lumbered, in a degree to prevent the free circulation of the air; and the same cause prevented it from being thoroughly cleaned. In the decks below, many men were necessarily crowded together in sleeping, under a very high temperature; for the thermometer was seldom below 84°. The steam apparatus created an unavoidable source of heat, which was constantly being diffused throughout the vessel by the active conducting powers of the metal (iron) of which she was composed. It might be supposed that this would rather lead to the cooling of the vessel by its immersion in water; but the water of the river was seldom below 83°! Under these circumstances, we think it pretty evident that had the fever been contagious, some proofs of its possessing this character would have been most probably obtained. There can, however, be no doubt that the great mortality which attended the disease was in great part to be ascribed to the vital energies of the men becoming reduced by these depressing influences.

"In the absence of any medical history of the progress of the malady on board the recently arrived vessel, it is out of our power to form a conjecture, whether the deaths on the homeward voyage, and those which have taken place off Portsmouth, were due to the African fever or its sequelæ. If to the former, the disease may, like the worst form of typhus fever, have acquired a contagious character from confinement, want of ventilation, or proper medical or hygienic treatment, an evil which was only likely to be increased by the plan pursued under the quarantine laws, at the first arrival of the ship. The remedy would have been to have isolated the affected, and placed them at once under medical treatment, whereby all danger of the diffusion of the disease would have been prevented.* It does not appear probable, however, that the genuine African fever would have lain so long latent; the facts observed in the Niger Expedition show that the period of latency is about from 16 to 21 days; and it may turn out, therefore, that instead of fresh cases of the fever occurring on board this ill-fated ship during the latter part of the voyage, they may have been merely sequences of the malady aggravated in their effects by the unhealthy state of the vessel.

"It has been long known that those who recover from this disease are liable to suffer from lesions of the mucous membranes of the bowels, which are caused by the fever. Hemorrhage, hæmatemesis, and dysentery, have supervened long after the fever has passed away, and have destroyed life. Within a short period, all these matters will have been cleared up to the satisfaction of the public and profession; since Sir William Pym, Superintendent-General of Quarantine, and Mr. Arnott, of the Middlesex Hospital, have been appointed to investigate the matter; and their report, which we hope to present to our readers, is, we understand, more favorable than the intelligence already received would have led us to anticipate.

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* This plan, it appears, was immediately adopted by the Portuguese governor of the island of Buena Vista.

"This does not, however, remove the objections to our quarantine regulations, which loudly call for some modification. We are not prepared to say, after the sad experience of the pestilential cholera, that fearful maladies derived from endemic causes in one quarter of the globe, may not diffuse themselves by a property strongly analogous to, if not identical with, contagion; but we believe it to be not only a selfish but a dangerous policy to shut up the diseased under such circumstances. The poison is only likely to acquire thereby a more virulent action; and, like the jail-fever at the Black Assizes, cut off all who come within its sphere. Moral causes, it is well known, have an inportant influence in bringing on an attack, so that the locking up the healthy with the affected for the period required by the quarantine laws, is virtually consigning the former to destruction.

"We have made these remarks, as the subject is of present interest. The history of the African fever, as given by Dr. M'William, shows it to be a disease most insidious in its attacks, most fatal in its progress, and at present apparently beyond the reach of medical treatment.* The bare possibility of so fearful a malady becoming imported into this country, and spreading itself by contagion, is therefore a subject which deserves the close attention of the medical profession."

"[The above remarks were made before we had seen the Report to the Admiralty by Sir W. Pym and Mr. Arnott, which is elsewhere printed.† We are glad to find that energetic measures have been taken, and that, on the arrival of the Eclair at Standgate Creek, such precautions were adopted as prudence would suggest. Those who had escaped from an attack of the fever (41) were removed to a clean vessel, and the convalescents to another. At present, there are only two men confined to bed with the fever, but no fresh case has occurred since the 29th ultimo. The report, we think, leaves it clear that the fever has, in this instance certainly, spread by contagion. In the report, we have no detailed account of the symptoms; but it is expressly stated that the disease was marked by the occurrence of "black vomit," the first fatal case being that of a man who was brought on board after having been three days on shore. Soon afterwards, eighteen persons were attacked with fever and black vomit, and thirteen died! The disease may therefore be some severe modification of the coast fever; for Dr. M'William expressly states that 'in no case of the river fever was there the slightest appearance of "black vomit." Bilious vomiting was common in the early stage of the disease.'‡ We shall take care to report any facts that may further transpire with respect to the disease. In the meantime, there is every reason to believe, as the report states, that its progress is arrested.]"—*Lond. Med. Gaz., Oct.* 10.

11. *Hygiene in Great Britain.*—The following are the results of facts laid before the "Commissioners for inquiring into the state of large towns and populous districts"—appointed by the British Parliament, as contained in their

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* The results of the late Niger expedition were, that out of 145 whites, 130 were attacked with fever, and 40 died: or 1 in 3·25 of the attacked. Only 15 persons escaped the fever; but some of them afterwards suffered from disorders which were probably brought on by the voyage. In a second attempt to ascend the river by one steamer—out of 8 white persons, 7 were attacked, and 2 died. It is remarkable as an indication of an acclimatizing influence, that out of 158 blacks, only 11 were attacked with fever, and not one died. It seems also that the blacks, or Kroomen, in the case of the Eclair, have entirely escaped the fever.

† Page 1043.

‡ Medical History of the Expedition to the Niger, during the years 1841-2, p. 139.

first report. When will our city authorities enter upon a similar investigation, with a view to the adoption of such sanitary regulations, as reason and experience would seem to point out.

1. That the districts inhabited by the poorer classes are badly drained and badly cleansed.
2. That in the houses of the poor, there is a general want of all the conveniences which conduce to cleanliness and decency: viz., supplies of water, proper privies, and house drains.
3. That the rooms inhabited by the poor are over-crowded and ill-ventilated.
4. That the shops and workshops of the metropolis are also very imperfectly ventilated.

The consequences of this unwholesome state of the streets and dwellings of the poor, and of the shops and workshops of the metropolis, are,

1. An excessive prevalence of fever, and of the whole class of epidemic diseases; of scrofulous affections; and of pulmonary consumption: and, as a natural result, a very high mortality.
2. A heavy annual expense entailed upon the community in the shape of large contributions to hospitals and dispensaries and the general charities of the metropolis, and of increased assessments to the poor's rates.
3. Great pecuniary embarrassments among the poor themselves, arising from loss of work, or the expenses attendant upon the sickness or death of wives or children.
4. The sacrifice of self-respect, and the formation of habits unfavorable to morality and religion, among which the vice of intoxication holds a prominent place.
5. The over-crowding and the intermixture of persons of both sexes and of all ages in small and confined rooms, lead to the most revolting crimes.

The remedies for these evils are so simple as to be almost self-evident. They are:—

1. An efficient system of drainage, combining well constructed sewers with a proper supply of water, for the prompt removal of their more solid contents.
2. Water closets and house drains, communicating with the sewers.
3. An ample supply of water laid on to every room or flat of every house.
4. A free ventilation of shops, workshops, and dwellings.
5. The building of new houses for the poor, combining all these advantages, and the improvement, to the utmost possible degree, of existing houses.—*Medical Times*, *March* 8.

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American Intelligence and Editorial.

NATIONAL MEDICAL CONVENTION.—It is now certain that the National Medical Convention, proposed by the Medical Society of the State of New York, which is to assemble in this city in May next, will be very fully represented by delegates from the different schools and colleges, and State and County Medical Societies in different sections of the Union. We expect that great good will result from the measures adopted by this Convention, and from the National Society, which we trust will grow out of it; the questions which will then come up for discussion, as connected with medical legislation, medical education, and medical ethics, will be of paramount importance, and we shall take measures to have the proceedings fully reported for our Journal. Would it not be well for our city and county Medical Society to take some action on the subject, as the convention is to be held in this city? We trust a place of meeting may be provided, and such other preparations made, and civilities proffered, as may seem appropriate to the occasion.

We invite particular attention to the following very just remarks from the gentleman who originated the plan of a Convention, as recommended by the State Medical Society:—

Mr. Editor,—In the last number of the *New York Journal of Medicine, and the Collateral Sciences,* you kindly published a letter of mine containing a brief notice of some of the defects of our present system of medical education. When that was written I intended to prepare a more detailed account of what I deem the appropriate remedies, in time for publication in your January number. But other imperious demands on my time have prevented. Still permit me to make a few hasty observations. In regard to remedies for the present defects in our system of education, first of all, and at the foundation of all, we place *more care* on the part of individual practitioners concerning the *capacity* and *qualifications* of young men whom they receive into their offices as students; and then *more attention* to their education after they are received. No one can have failed to notice the almost total neglect everywhere apparent in this respect. Whoever takes a notion to study medicine; no matter if his primary education should not enable him to write his own name intelligibly, much less to understand a single branch of Natural Science, and his intellectual faculties naturally as dull as the sleepiest drone in the country; he is readily received into some office, shown a scantily filled case of Medical Text-books, and left to while away the time required by law before he can be honored with the title of Doctor. This is a great and all-pervading evil; and it is vain to exert ourselves to elevate the standard of education, until it is removed. For so long as the mill is supplied with bad grain, it will grind out only bad flour. It is from the offices of the private individual physicians that all our colleges and boards for examining students, are supplied; and certainly if no care is exercised in first selecting and subsequently training students by them, with which to supply the colleges, it will be utterly in vain to look for a well-qualified body of practitioners to emanate from those institutions. There was a time, when it was considered quite an important matter for a young man to become a student in the office of a physician.

In the first place, a respectable fee was required; secondly, a good English education, at least, was indispensable; and lastly, when once admitted into the office, his studies and training were the subject of unremitting care on the part of the preceptor. And not only so, but in the later periods of his studentship he was converted into a kind of assistant, ever at his preceptor's elbow to make up prescriptions, attend on the sick, and as far as possible to enter on the active duties of his future profession. In this way he acquired not only studious habits, and much knowledge, but also considerable practical experience. Thence, with the aid of colleges presenting advantages far inferior to those of the present day, the students of that period became almost uniformly learned and honorable practitioners. And not a few of those educated at that period, with their heads silvered over with age, possess a degree of mental discipline and sound learning, which should put to the blush thousands of the graduates who now yearly emanate from our numerous well-endowed schools of medicine. And if a National Medical Convention should do no more than to thoroughly discuss this one subject, and publish to their professional brethren a sound and stirring appeal to aid in removing the evil, it would well repay all the time and money spent in attending it. The truth is, we must require of young men a more extensive and thorough primary education; and then far greater importance must be attached to the business of private teaching in medicine. These two things done, and we have laid a sound and permanent basis for such a reform in medical education as is ardently desired by every enlightened member of the profession. Indeed, it is our opinion, that the medical profession will never be elevated to that position which it ought to occupy, until the student, during his private pupilage, instead of spending all his time in a *mere* and almost unassisted reading of text-books, actually engages with scalpel in hand, in a patient practical study of anatomy and physiology, both human and comparative; chemistry in the laboratory; materia medica and medical botany in the fields and the forests; and clinical practice by the bed-side of his preceptor's patients. In doing this, he will not only lay the foundation for a comprehensive and thorough medical education, but he will acquire that degree of mental discipline and love of study, which will make an enlightened and ardent cultivator of science through life.

Let it not be objected here that we are requiring the work of a medical college to be done in the office of the private preceptor, and that we are therefore to dispense with these institutions. By no means; for we are only advocating such a course as will prepare the student to profit most fully during the short period of his collegiate attendance. Indeed, there is a very prevalent and fatal error abroad in regard to the relative positions of the preceptor's office and the medical college. The former is regarded too much as a mere library-room, in which to while away eight months of the year in a desultory reading of books, while the four months in the latter is looked to as the principal time for acquiring a practical knowledge of the various branches of Medical

Science. Whereas, the long season of private pupilage should be the time for minute, patient, and strictly practical detail in every branch; while the well-endowed school, with its extensive apparatus, splendid museums, and pathological specimens, should serve the part of a close and systematic *review*, calculated to correct, extend, fix, and polish all that had been acquired before. It may be objected again that very few private preceptors could afford to procure subjects for dissection, and a miniature chemical apparatus, &c., for only one, two or three students. That is very true if he receives them into his office without fee or reward, and gives them a corresponding share of his attention, which would be none at all.

But as we have already said, let the business of private teaching receive that attention which its intrinsic importance demands, let every student be required to pay a reasonable annual fee to his preceptor, and that fee will defray all the necessary expenses. Not only is such a course imperiously demanded by the interests of the pupil, but its effects would be equally beneficial on the preceptor himself. Indeed, such a course with the private student, would necessarily lead to constant and persevering investigations by the preceptors, embracing the great body of practitioners in the country. Thence this reform alone would do much to enlighten and elevate the whole mass of the profession; and we hope it will engage a due share of the attention of the coming National Convention. We cordially agree also with the views of Dr. Ticknor, as given in the November number of your Journal, in regard to the formation of a Permanent National Medical Society. We believe such a society would not only be able to render valuable aid in elevating and nationalizing (if we may use the term) the whole profession, but it would serve to awaken and sustain a laudable ambition in the minds of hundreds who are scattered over the country, and now never heard from.

There are several other points connected with our profession which must occupy the attention of the Convention, and which we will notice at a future time. The fact that a National Convention will be held next May, and numerously attended, we no longer regard as doubtful.

N. S. D.

Binghamton, December 6th, 1845.

Clinical Reports.—We have been asked why we do not report the Medical and Surgical Practice of the Hospital and other public institutions, and the cliniques of our Medical Schools, in our Journal, and thus add to its practical utility. In reply, we have only to refer our readers to the past Numbers of the Journal, for proof that our pages are not destitute of such kind of matter. The attending physicians and surgeons of the New York Hospital are among the ablest and most valuable contributors to our Journal, and scarcely a case of importance occurs in that institution, but what is recorded in our pages. They, as well as we, have aimed to give our readers the compressed results of their experience, rather than long cases, spun out interminably with diurnal details, and containing only facts that everybody knows. Such clinical reports are not read, either by old or young; they, in fact, disgust rather than attract. We do not aim to make a journal for neophytes and children, yet in their leading-strings and go-carts, but for *men*; for those who know the proper treatment of ordinary diseases, and do not wish to have their brains flooded with rivulets of common-place matter. Those who wish for such kind of reading, can be easily accommodated elsewhere. We have no objection to publish select cases, where they serve to illustrate some important principle in physiology or pathology; indeed, we are always glad to get such cases. But what we aim chiefly to do, is to lay before the profession valuable *general results*, deduced from experience, but sparing our readers the trouble of wading through bushels of chaff to get at a kernel of wheat. A good Medical Journal is a vast labor-saving machine, not a drag-net, which scoops up all sorts of material, good, bad and indifferent.

On this subject of clinical reports, we had supposed there could be at present but one opinion, as there is but one practice, now pursued by the leading Medical Journals of the age. Dr. Johnson attempted to give detailed reports of hospital cases in the Medico-Chirurgical Review, and offered prizes, as did some of the other British Medical Periodicals, for the best reports of the kind; but he soon found they were not read; were in fact regarded as so much useless lumber, and he was very glad to drop them, lest his subscribers should drop him. There is wisdom, if not deep philosophy in that fable of Master Æsop, that tells us of the fox that lost his tail, &c.

Dr. Bell, of Philadelphia, has the following remarks on this subject in the last Number of his excellent periodical, "The Bulletin of Medical Science." "Good clinical reports are, we need not say, of great value; but of late, the good quality of the thing is in the inverse ratio of its abundance, and too often the merest common phrases, slip-slop narrative and twaddle, are inflicted on us in the shape of clinical reports and clinical lectures; or, if there have been some good points and leading truths to start with, they have become so hammered out by iteration, as to no longer serve a useful purpose."

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EFFECTS OF LIGHTNING.—Our readers will doubtless recollect a remarkable paper, published in a former number of our Journal, entitled "extraordinary effects of a stroke of lightning," by John LeConte, M.D., of Savannah, Georgia. In a recent letter from the distinguished writer, we have the following additional particulars, in relation to some of the cases there mentioned:—

"*Savannah, Dec. 4th*, 1845.

"DR. LEE,

"My Dear Sir,—Thinking that you might be interested in hearing something further concerning the history of the cases which formed the subject of my paper on the 'effects of lightning,' which was honored with a place in the 'New York Journal of Medicine, and the Collateral Sciences,' for Nov., 1844; I have concluded to avail myself of the privileges of a correspondent.

"You will recollect, that only *two* out of the *five* negroes who were struck down, survived the shock, viz. cases four and five. Charlotte (case 4), up to the time she was struck by the lightning, had never been *pregnant*, although she was then past 29 years of age. The electricity seems to have produced a remarkable impression upon her *uterine* functions, causing a manifest derangement of the catamenial flux, as already noticed in my previous details of the case. During the early part of the last summer, she became *pregnant* for the first time in her life, and will shortly be confined!! She has been married about ten years. It is impossible to determine whether the establishment of the reproductive functions in this case, is in any manner connected with the powerful shock sustained by her nervous system; but, perhaps, the fact is not unworthy of note, when taken in connection with the extraordinary impression which was made upon the uterine functions in both of the survivors.

"Sarah (case five), the woman past 70 years of age, in whom menstruation was re-established after twenty years' cessation—still continues to menstruate with *perfect regularity* up to the present time, more than two years and five months since she was struck by lightning!! Her health still continues very good.

"Since my last communication to your Journal, on the 'seat of volition in the alligator,' I have had an opportunity of repeating the experiments on a *very young* animal. On the first of November, with the assistance of my brother, Dr. Joseph Le Conte, the same experiments were instituted on an alligator about twelve inches long. We were greatly surprised to find that it did *not* exhibit the same determinate movements after decapitation as were manifested in the former experiments, and as we had *repeatedly* observed in larger specimens. The trunk of the animal writhed under the application of irritants, but he was unable to direct his limb to the offending object. At first sight, these last experiments may seem to contradict those contained in my paper; but a little reflection will convince us that, so far from invalidating them, they afford the *strongest possible confirmation* of the correctness of my deductions. The decapitated young alligator but a few weeks out of the egg, is in a condition analogous to the new-born infant, so far as the manifestations of voluntary powers are concerned. The infant *feels* pain and manifests symptoms of suffering, but is unable to direct his hand to the spot, because he has not been taught the proper use of the necessary muscles by *experience.* For the same reason, the very young reptile, after decapitation, could not direct his limb to the point of irritation, although he appeared to be conscious of an unpleasant *sensation.* Experience had not yet *taught* him how to use his extremities as it had done in the older animal. Indeed, I am disposed to regard the phenomenon of the absence of determinate motions in the *very young* animal, as an '*experimentum crucis*' in *favor* of the strictly *volitional* character of the movements manifested in the *older* reptile. If the motions in such decapitated animals are purely reflex; if they necessarily result from certain *physical* conditions of the nervous system; then, they should exhibit the *same characters* in the young and the old animal. That which can be *taught* by *experience*, can scarcely be imagined to be anything else than an internal self-dependent principle; in other words, *mind.* When the alligator is above two feet in length, I have never failed in eliciting determinate movements after decapitation."

MR. GOULDING'S NEW TRUSS.—We have examined with much satisfaction, a new Truss, invented and patented by W. R. GOULDING, the celebrated *Surgeons' Instrument Maker*, 57 Chatham street, which seems to us the *ne plus ultra* in the line of mechanical contrivances for the relief and cure of the different forms of hernia. Having been furnished with a cut we are able to give a very accurate description of the same, for the benefit of all who have occasion to recommend or employ such an instrument:—

Mr. G. makes use of the ordinary bell or cushion for the back, and steel strap or common main truss spring: his improvement being confined to the front pad, and the means of graduating its pressure, particularly of increasing or diminishing the pressure inward and upward at the inferior region of the rupture, without at the same time affecting the pressure on the opposite or upper portion. Instead of attaching the main spring directly to the ordinary plate or back of the pad, he connects it by a screw and socket KK, Figure 3, to a separate back marked AA, Figures 2, 3, and 5. This back is made of sheet metal stamped into a hollow form with the view of combining lightness and stiffness. It is of the same dimensions as the plate B, Figures 2, 3, and 6, to which the pad is attached. AA is fitted with the concave side downwards to B, as shown at figures 2 and 3. Both are connected at one extremity by a loose rivet C, figures 2, 3, and 5, which serves the purpose of a hinge, allowing them to open to a sufficient extent, somewhat like the shells of an oyster.

As the truss spring is permanently fixed to the back AA, both remain relatively at rest; it therefore follows that the plate B, if moved at all, must move on the rivet as on a centre. The end B, the lower part of the pad (when in use), will therefore describe a portion of a circle whose radius extends from B to the rivet, and consequently press the protruding viscera over which it may be placed, upward and inwards, in proportion as B recedes from A, while that part adjoining the rivet will hardly be affected at all.

To impart the requisite movement to the plate BB, and its pad, Mr. G. introduces the screw S, figure 3, through AA, at O. The head of S is milled so as to be readily turned by the wearer of the truss with the finger and the thumb. The part that works in AA has no thread cut on it. A collar, E, on one side, and another, E, slipped over the thread and secured by a pin on the other, prevents it from rising or descending through AA, but permits it freely to turn in the opening. To receive the threaded part of this screw, a hole, S, is drilled and tapped immediately opposite to it in a stud on the plate B, so that by turning the screw S, the plate and pad stitched to it, are made to approach towards or recede from A.

It is however evident that the parallelism of the male and female screws S and S could not be preserved, as the space between the plate

Fig. 1.

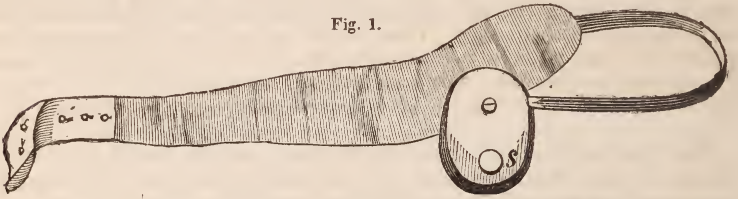


Fig. 4.

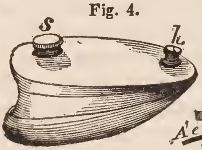


Fig. 2.

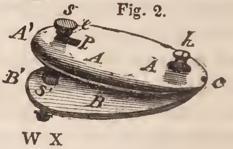


Fig. 3.

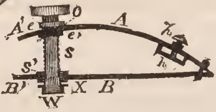


Fig. 5.

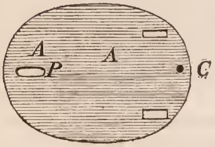
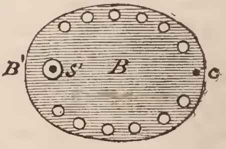


Fig. 6.



B and back AA varied, unless there be some provision by which one may yield to the changing position of the other: Mr. G. therefore cuts a slit along the back AA, as shown at P, so that the screw S is free to move in a direction to or from the rivet, and thereby accommodate itself to the varying position of the plate and pad. To prevent the screw S from being wholly drawn out of S, a wire pin is passed through its lower end, the end of the pin extending sufficiently over the opening as at X, or a button screwed or riveted on the end answers the same purpose, as shown at W. A series of holes are punched in the pad, plate Figure 6, with the view of removing superfluous metal and keeping it as light as possible. In the finished truss both the plate and back are covered with leather, as represented at Figure 4; the heads of the screw S, and that by which the spring is secured in the socket only being exposed.

Figure 1 represents the Truss complete. The following letter from Dr. Mott expresses his opinion of the merits of this instrument in very decided terms:—

"New York, Dec 3, 1845.

"Mr. Goulding:—*Dear Sir,*—It is with great pleasure I inform you, that I have just received from one of my particular friends, a most flattering account of the beneficial effects of your 'new Patent Truss.'

"He has been afflicted with an Inguinal Hernia on each side, for many years, and latterly with one at the navel also. He has tried a variety of the most improved Trusses of the day, without finding any one effectual until he made use of yours.

"Having the fullest confidence in his integrity and experience in Hernia from practical observation, I must from delicacy withhold his name. You have attained a great object in this combined improvement, for which I congratulate you. The successful adaptation of your Truss to my friend's case, encourages me to believe that it is well calculated to relieve the worst forms of Rupture.

"This improvement, with others you have made in the manufacture of Surgical Instruments, which I have had an opportunity of knowing, warrants me in recommending you to the Public and Medical Profession.

Very respectfully yours,
VALENTINE MOTT.

Copland's Dictionary.—Part XII. of the American reprint of this work has been published, and it will hereafter be issued at the rate of one number every two months, in order to give time for its completion in England. It has been received with universal favor, so far as we have heard, and in the remaining portions there will be found no falling off. We extract the following notice of the last part (X.) from the London Lancet:—

"Remarks of the kind are very trite, but we are forced to repeat, with the appearance of every part of this immense work, that viewed as a mere effort of labor, it is one of the most extraordinary that has ever appeared in the medical literature of this country, as a single-handed production. Dr. Copland has proved himself a paladin of the pen; when his dictionary has reached its full proportions, for which a few more parts will suffice, it will indeed be an intellectual pyramid. Looking at the thickset page, with its double columns, and diamond type, the multitudinous references, and copious bibliography, any one accustomed to literary labor must feel astounded at its being the work of one man. It could only have been wrought out by unwearied and pains-taking application, and the most careful husbandry of time. In one of the early parts of the work, in the article on the Eye, we get an insight into the time it has taken the learned artificer to produce his work : he says :—" I have continued, for many years, to read or write from eight o'clock in the evening till two or three o'clock in the morning." Six or seven hours nightly, spent by the mass in pleasure, idleness, or sleep. This is truly spending the midnight oil ; nothing but the hardest *physique* could have stood against such a perpetual moil, and left the worker hale and strong, as we believe is the fortunate lot of Dr. Copland."

Works of Hippocrates and Galen.—We rejoice to learn that the venerable and learned Dr. John Redman Coxe, of Philadelphia, proposes, if 500 subscribers can be obtained, to translate for publication the selected works of Hippocrates and Galen, in two or three volumes, at $3 per volume. We know no one in the profession better qualified than Dr. Coxe to undertake such a work, and we trust the proposition will be responded to in a prompt and substantial manner by the profession generally. We enter our name for two copies.

Necrology.—*James Johnson.*—There is no name in our profession more familiar to the American physician, or one more respected and influential as a medical writer, practitioner, and reviewer, than that of Dr. James Johnson, late editor of the Medico-Chirurgical Review. There is no individual, we may add, of the present age, in the profession, who has exerted so extensive and salutary an influence over medical opinions and practice, in both hemispheres, as Dr. Johnson ; and now that we are called upon to record his death, we feel that one of the great lights of our science is extinguished, and that there is no living physician who can fully supply his place. There is no question, but that American practitioners are more indebted to this eminent writer, both in his capacity of author and reviewer, for correct views of the pathology and treatment of our prevailing diseases, especially those of the southern and western portions of our country, than to any other, we had almost said to all other, writers. We need but allude to his admirable works on " Tropical Climates," on " Indigestion," and his " Philosophy of Health," to say nothing of his Review, which, from its re-publication here, has had a very extensive circulation. Dr. Johnson, as we learn from the Medical Gazette of October 17th, expired at Brighton, on the 9th of October last, after a short illness, in the 69th year of his age.

New Medical Work.—We are happy to learn that Dr. Horace Green of this city is about putting to press an original work on the Pathology and Treatment of Laryngeal and Bronchial Diseases, illustrated by appropriate engravings and wood-cuts. The chief aim of the publication, we understand, will be to set forth the advantages attending local cauterization of the larynx, after the manner of Trousseau and Beloc, as explained in a former Number of our Journal. From the known ability and extensive experience of Dr. Green, we have no doubt he will produce a work of great interest and value to the profession, and calculated to advance our knowledge in relation to this interesting class of diseases. As soon as it appears, we shall take much pleasure in giving a particular account of its contents.

The Lyceum of Natural History of New York.—This Society has recently removed its splendid cabinet into the building formerly known as the "Stuyvesant Institute," in Broadway, now owned and occupied by the Medical Department of the University of the City of New York. Notwithstanding the pecuniary embarrassments which this society has labored under during the past few years, it is a matter of congratulation that it is finally relieved of all embarrassment, and that its magnificent museum has been preserved, and will continue to attract the attention and admiration of strangers and visitors, and be a source of instruction and gratification to our citizens generally. We are also rejoiced to learn that the Lyceum is about resuming the publication of its "Annals." The interesting papers contained in the former volumes of this work deservedly attracted the attention of the lovers of Nature, both in this country and in Europe; and we hope that the regular appearance of the work will not again be interrupted.

It may be known, perhaps, to our readers that this society does not confine itself to any one branch of natural science, but is a zoological, a botanical, a geological society, one and all of these at the same time; hence its adaptation to awaken general interest in its proceedings, and secure full attendance at its stated meetings. These are held every Monday evening at its rooms in the University Building, when papers are read, discussions held, and specimens exhibited. We trust that those members who formerly took an interest in its proceedings will again resume their attendance, and that the society, which has already done more to advance the progress of natural science in our country than perhaps any other, will long continue its laudable exertions in the same noble cause.

Second Volume of Ranking's Half-Yearly Abstract.—The second volume of this very valuable publication has just arrived, and will be immediately issued, and forwarded to all subscribers to the Journal who have paid in advance. Its execution, like that of the first, is admirable, and we know no work of the day that will at all compare with it in practical utility.

Second Volume of Velpeau's Surgery.—The second volume of this great work is nearly through the press, and will be issued almost simultaneously with this number of the Journal. It will be found of a still more interesting and useful character than the first, Dr. Mott having contributed over one hundred pages of original matter, from his own pen, on the subject of hernia; besides having made very extensive additions on other subjects. No surgeon ought to be without a copy of this work in his library.

MEDICAL CLASSES.—The progress of medical education in this city for the last few years has been decidedly onward—and if the ratio of numbers in our two medical schools increases in the same proportion for the next five years, that it has in the five preceding, the year 1850 will find over 1000 medical students pursuing their studies in this metropolis. But to secure this, increased exertions will be required; and the clinical advantages of this great city must be better developed and made more available. Students who attend city schools, mainly for the opportunity of connecting clinical with didactic instruction, should be able to avail themselves of these advantages, to their full extent, and under the most favorable circumstances. The New York Hospital, as well as that at Bellevue, combines all the elements necessary for the fullest clinical teaching, but we regret to know that the first is nearly neglected, and the latter altogether so, by those who resort here for the very advantages these institutions are said to hold forth.

We are informed by one of the hospital surgeons that during the entire month of November, but 14 out of over 600 students now in the city, took the hospital ticket, and up to the present time, Dec. 22, only 20 in all have taken the ticket. Now, we do not hesitate to say that New York can never compete with Philadelphia, as a place of medical education, so long as this state of things continues; and we tell our friends, the professors connected with both schools, and we are happy to number them all among our friends, that this state of things cannot continue without serious detriment to their interests, and a gradual falling off of the numbers of those who resort to them for medical instruction. Clinical lectures, at least twice a week, should be delivered in the New York Hospital by the professors of each school alternately, or by the attending physicians of the hospital; so that all the important diseases may be treated of, in connection with cases suitable for illustration: and this in addition to the weekly cliniques now held. The cases which occur at these cliniques are many of them interesting, but they are generally of a chronic character, and belong chiefly to a very few varieties of disease; it is acute diseases, and those of a severe form, that the medical student desires to be made acquainted with; their symptoms, diagnosis, treatment. If hospital privileges are not enjoyed, we see no advantages which city schools furnish over those of the country; and we fear that students will not consider them sufficient to compensate for the increased expenses incident to a city residence of four months' duration. Country schools have their *cliniques* as well as those of the city; that at Geneva Medical College furnished last year nearly fifty cases monthly, including most of the operations performed in surgery; and during the present season, they are sufficient to authorize the professor of surgery to publish a weekly bulletin of reports of several pages in pamphlet form, for distribution. We have frequently known patients brought from Canada, Michigan, Ohio, and various parts of Pennsylvania, to that institution for surgical treatment; and doubtless other country schools have also their proportion of similar cases.

Now it should be recollected that if a large city furnishes some advantages for the study of medicine, it has also its disadvantages (which are too obvious to need pointing out), and to overcome the latter, it is absolutely necessary that the former should be fully developed. Had they been so, we should now see at least 1000 students pursuing their studies in this city; and unless exertions are made to place New York in advance of Philadelphia in these respects, we may confidently look for a gradual falling off of numbers till they reach that point, when the rewards of teaching will not compensate for its labor.

We make these remarks in no unfriendly spirit: on the contrary, they are dictated by a sincere desire to see New York first in its medical schools, as it is first in commerce, first in enterprise, and first in population. We see here immense advantages—such as might make New York the Paris of America, and yet they are lost; allowed to remain undeveloped, while a sister city, with far less advantages, is taking the lead, and will continue to do so, until the Hospitals of New York become great clinical schools, and their resources made available for the great and paramount objects of medical education.

SUICIDE, WHEN DOES IT VITIATE A POLICY OF LIFE INSURANCE?—It seems to us, that the phraseology of the policies of our different life insurance companies is not sufficiently precise and definite to prevent difficulties, in all cases of self-destruction. That, for example, of the "Mutual Benefit Life Insurance Company," of this city, reads thus, "or, in case he shall die by his own hand." Now, suppose a person kills himself in a fit of insanity or delirium tremens, is the policy void, or will the company expect to pay? A case of this kind has recently been litigated in England, and it was decided, very properly we think, that the act of suicide did not make the policy void. Would it not be well to have this matter fully understood, in order to prevent future misunderstandings?

VERMONT ASYLUM FOR THE INSANE.—We have received the *Ninth Annual Report of the Trustees and Superintendent of the Vermont Asylum for the Insane*, by which we learn that the institution, under the management of William H. Rockwell, M.D., is in a highly flourishing condition. The number of patients who have partaken of the benefits of the Asylum during the past year, amounts to a total of three hundred and sixty-two. Two hundred and four have been admitted, ninety-nine discharged, and two hundred and sixty-three remain. Of those discharged, fifty-nine recovered.

HARISON'S MATERIA MEDICA AND THERAPEUTICS.—Since our former brief notice of the first volume of this work, the second has been received, which fully sustains the character of the first. We regret that we are unable in our present Number to give an analysis of the contents of the entire work; we must therefore be content, at present, to recommend it to our readers, as highly worthy their attentive perusal and study.

GROSS'S PATHOLOGICAL ANATOMY.—We have just received the 2d edition of the well known "*Elements of Pathological Anatomy*," by Samuel D. Gross, M.D., Professor of Surgery in the Medical Institute of Louisville, Ky. The work, we find, has been thoroughly revised, many parts re-written, and an amount of matter equal to 300 pages of the original introduced. The number of illustrations has been increased from 97 to 250; one-third of which are original—the remainder are selected from standard authorities. It is comprised in a ponderous volume, of 822 pages (large octavo), and gives a very comprehensive and accurate state of the science of which it treats, as it exists at the present time. We shall hereafter notice the work more at length; at present, we can only add, that we regard it as one of the most valuable medical works ever issued from the American press, and it does great honor alike to the author, and the country of his birth.

REPORT OF THE SURGEON GENERAL, U.S.A.—We have just received a copy of the Report of the Surgeon General U.S.A., from which we gather the following results:—

"The number of officers and men remaining sick on the 30th September, 1844, was 620, and the number of cases of disease which have occurred within the twelve succeeding months, is 22,496 ; making an aggregate of 23,116 cases of indisposition that have been under medical treatment since my last report.

"Of the whole number of sick reported, 22,091 have been restored to duty, 14 are on furlough, 168 have been discharged the service, 14 have deserted, and 78 have died ; leaving on the 30th of September, 751 still on the sick report.

"The mean strength of the army for the last 12 months being, according to the monthly returns in the Adjutant General's office, 8,590, and the number of cases of indisposition reported during the same period being 22,496, it will be perceived that the proportion of cases of disease to the number of officers and enlisted men in the service was 2.61 to 1, or that, on an average, each man was sick 2.61 times during the year ; that the ratio of deaths to the number of men was as 1 to 110.12, or 0.90 per cent. : and the proportion of deaths to the number of cases under treatment, as 1 to 295.07, or 0.33 per cent.

"A medical board for the examination of applicants for appointment to the medical staff of the army was convened in the city of New York on the 1st of July last. Before this board 15 candidates were invited to present themselves, 10 of whom only appeared and were examined ; and of these last, but 2 were approved and recommended for appointment.

"The meteorological observations at the various military posts have been somewhat interrupted by the total abandonment of some of the stations, and other contingencies growing out of a change of position of the troops ; but at those points which have been continuously occupied by troops the observations have been regularly taken."

The principal diseases, with the number of cases, are as follows :—Common continued fever, 94 ; intermittent (quotidian), 1,992 ; intermittent (tertian), 1,572 ; intermittent (quartan), 61 ; remittent fever, 298 ; typhus fever, 2 ; erysipelas, 33 ; rubeola, 12 ; scarlatina, 31 ; cholera, 160 ; colic, 378 ; diarrhœa, 2,323 ; dysentery (acute), 689 ; do. (chronic), 34 ; dyspepsia, 197 ; enteritis, 24 ; gastritis, 71 ; constipation, 835 ; tonsillitis, 234 ; bronchitis, 67 ; catarrh, 2,464 ; phthisis, 31 ; hæmoptysis, 18 ; pleuritis, 167 ; pneumonia, 75 ; cynanche, 230 ; cephalalgia, 777 ; delirium tremens, 154 : epilepsy, 48 ; neuralgia, 61 ; gonorrhœa, 421 ; orchitis, 83 ; syphilis (primary), 261 ; secondary, 69 ; rheumatism (acute), 738 ; (chronic), 200 ; phlegmon and abscess, 929 ; ulcer, 379 ; contusion, 1,291 ; subluxation, 490 ; burns, 101 ; incised wounds, 419 ; debility, 107 ; drunkenness, 577 ; hæmorrhoids, 138 ; hernia, 60 ; cutaneous diseases, 121 ; ophthalmia, 321. The ratio of deaths to the number of men, strikes us as very remarkable, 1 to 110.12.

Mr. Espy has collated the meteorological reports of the different army surgeons, for the months of January, February and March, stationed in various places remote from each other, and has deduced the following generalizations, for those months :—

"1st. The rain and snow storms, and even the moderate rains and snows, travel from the west towards the east, in the United States during the months of January, February and March, which are the only months yet investigated.

"2d. The storms are accompanied with a depression of the barometer near the central line of the storm.

"3d. This central line of minimum pressure is generally of great length from north to south, and moves side foremost towards the east.

"4th. This line is sometimes nearly straight, but generally curved, and most frequently with its convex side towards the east.

"5th. The velocity of this line is such, that it travels from the Mississippi to the Connecticut river in about twenty-four hours ; and from the Connecticut to St. John's, Newfoundland, in nearly the same time, or about thirty-six miles an hour.

"6th. When the barometer falls suddenly in the western part of New England, it rises at the same time in the valley of the Mississippi, and also at St. John's, Newfoundland.

"7th. In great storms, the wind, for several hundred miles on both sides of the line of minimum pressure, blows towards that line, directly or obliquely.

"8th. The force of the wind is in proportion to the suddenness and greatness of the barometric depression.

"9th. In all great and sudden depressions of the barometer, there is much rain or snow; and in all sudden great rains or snows, there is a great fluctuation of the barometer.

"10th. Many storms are of great and unknown length from the north to the south, reaching beyond our observers on the Gulf of Mexico and on the northern lakes, while their east or west diameter is comparatively small. The storms, therefore, move side foremost.

"11th. Most storms commence in the 'far west,' beyond our most western observers; but some commence in the United States.

"12th. When a storm commences in the United States, the line of minimum pressure does not come from the 'far west,' but commences with the storm, and travels with it towards the east.

"13th. There is generally a lull of wind at the line of minimum pressure, and sometimes a calm.

"14th. When the wind changes to the west, the barometer generally begins to rise.

"15th. There is generally but little wind near the line of maximum pressure, and on each side of that line the winds are irregular, but tend outwards from that line.

"16th. The fluctuations of the barometer are generally greater in the northern than in the southern parts of the United States.

"17th. The fluctuations of the barometer are generally greater in the eastern than in the western parts of the United States.

"18th. In the northern parts of the United States, the wind, in great storms, generally sets in from the north of east, and terminates from the north of west.

"19th. In the southern parts of the United States the wind generally sets in from the south of east, and terminates from the south of west.

"20th. During the passage of storms, the wind generally changes from the eastward to the westward by the south, especially in the southern parts of the United States."

Mr. Espy observes that—

"In the summer months, there is one great feature of the storms of the winter months wanting; that is, their great size. In the summer the rains are quite local; and though, like the winter storms, each rain appears to progress towards the east from the place of beginning, yet, from want of size and continuity over a great space, they are not so easily traced.

"I shall, therefore, not attempt to deduce any generalizations for the summer storms, until all the journals which may be received for several years shall have been collated.

"In conclusion, I will venture to deduce two other generalizations, as applicable to the storms of January, February, and March.

"21st. The northern end of the line of barometric minimnm generally moves faster towards the east than the southern end.

"22d. The maxima and minima of the thermometer move towards the east with the storms."

Case of Intussusception.—(Communicated in a letter to the Editor, by A. B. Shipman, M.D., of Cortlandville, N. Y.)

"A child of Norman Olive, six months old, was taken, at 8 o'clock on Friday evening, crying violently, for which the mother gave a large dose of Godfrey's cordial, and repeated it in half an hour, when the child got easy, and fell asleep, and was quiet all night. Saturday morning the child seemed feverish and cried some. The mother gave castor oil, but it was rejected. I saw it at 12, M., Saturday. It was vomiting every few minutes, simply, the drinks which it had taken. There was no fever or unnatural fulness of the bowels; countenance tranquil, and disposed to play in the intervals of vomiting; no movement of the bowels since taken; ordered enemata; small doses of calomel repeated once in two hours, until dejections were produced. Evening.—The injections and calomel have procured no stools, and as there appeared some uneasiness, a little syrup of morphia was given.

" *Sunday Morning.*—The child had slept quiet through the night, but vomits this morning on giving it drinks or nourishment; gave ol. ricini and calomel, which it retained. Enemata of large size often repeated, but no stools procured. It is remarked that it vomits everything in the shape of food or drinks, but uniformly retains medicines. Noon.—Is tranquil, but no operation of physic; bowels soft, and it does not flinch on pressure. Continue the medicines—the calomel, oil, and enemata. Evening, 10 o'clock.—No change, except she seems calm; skin rather below the natural temperature; no unnatural fulness of the abdomen; no apparent tenderness on pressure; it seems languid and torpid, but smiles and plays by caressing it; has not vomited since noon. It continued to grow more cool and languid, but without any apparent pain, and died at 3 A.M. Monday morning, after taking it out of a warm-bath, fifty-five hours after the first appearance of the disease.

" I have said nothing of the pulse in this case, as in a patient at this age there is little to be gathered from it, but it was noted in this child frequently, and differed but little from the healthy standard, until Sunday evening, when the extreme depression which rendered it scarcely perceptible, and the increasing coolness of the skin, told too plainly that death was not far distant.

" But what was the Diagnosis in this case? *Intussusception*, *Strangulation!* There were certainly two symptoms indicating such a state of things—but then there were many negatives in the way. But an *Autopsy* cleared up the matter at once, to the no small relief of a well meaning, though ignorant woman of the neighborhood, who had on Sunday evening plied the patient with a dose of Thompsonian medicine, and as it died in a short time after it, a doubt arose in her mind, and also of the mother's (who were the only ones who knew of it), whether the medicine did not kill the child outright. This they took good care to keep to themselves until the autopsy had revealed the true cause of its death.

" *Post Mortem Examination.*—Four hours after death.—There was no unnatural fulness or distension of the abdomen; no decomposition of the body; adeps an inch thick over abdomen; a few ounces of serum in peritoneal cavity; no appearance of disease of any of the organs; no marks of inflammation in peritoneum or intestines; which were moderately filled with gas, but empty. *Stomach* empty and healthy, except the vessels which were injected in patches; *liver*, *spleen* and *pancreas*, healthy. A small knot was felt in the right ileac region; it proved to be about eight inches of the small intestine which had passed through the *ileocœcal* valve, and had completely obstructed the passage. It was easily pulled out, as no adhesions had formed there. All that portion invaginated was of a bright red, yet it was far from being in a state of gangrene, nor had it thrown out lymph. I have the preparation in my possession."

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Art. XVII.—Elements of Pathological Anatomy, illustrated by colored Engravings and 250 Wood-cuts. By Samuel D .Gross, M.D., Professor of Surgery in the Medical Institute of Louisville, Kentucky, etc., Third edition, thoroughly revised and greatly enlarged. Large 8vo., pp. 822. Barrington & Haswell, Philadelphia. 1846, . . 262

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TO READERS AND CORRESPONDENTS.

Several articles in type have been crowded out of our present number, among which is one by Dr. Dowler, "Obstetriciana;" one by Professor Williams, on "Medical Botany;" one by Dr. Monell, "Select Cases;" and the continuation of the Editor's article on "Typhus and Typhoid Fevers, etc."

Dr. Dowler's valuable essay on "The Reflex System," etc., was received after the present number was made up; we shall endeavor to find room for it in our next. Also for "The Recent Proceedings of the New York Medical and Surgical Society," with various other articles on hand.

We have received, since our last, the following works:—

Elements of Surgery. By Robert Liston. Fourth American Edition. By Samuel D. Gross, M.D., Professor of Surgery in the Medical Institute of Louisville. Illustrated with numerous engravings. Barrington & Haswell, Philadelphia. 8vo., pp. 664. 1846. (From the Publishers)

Natural History and Diseases of the Human Teeth. By Joseph Fox, M.R.C.S.L., etc. First American from third London Edition. Remodelled, with an Introduction and numerous additions, by Chapin A. Harris, M.D., DD.S., Professor in the Baltimore College of Dental Surgery, etc. Illustrated with thirty plates. Philadelphia: Barrington & Haswell. Large 8vo., pp. 440. 1846. (From the Publishers.)

A Manual of the Diseases of the Eye; or, Treatise on Ophthalmology. By S. Littell, Jr., M.D., one of the Surgeons of Wills Hospital. Second Edition, revised and enlarged. Philadelphia: Hogan & Thompson. 12mo., pp. 372. 1846. (From the Publishers.)

Phrenology Examined. By P. Flourens, Member of the French Academy, etc. Translated by C. D. L. Meigs, M.D. Philadelphia: Hogan & Thompson. 12mo., pp. 144. 1846. (From the Publishers.)

Explanations: A Sequel to "Vestiges of the Natural History of Creation." By the Author of that work. New York: Wiley & Putnam. 1846. 12mo., pp. 143. (From the Publishers.)

The Young Stethoscopist; or, The Student's Aid to Auscultation. By Henry L. Bowditch, M.D. New York: J. & H. G. Langley. 1846. 12mo., pp. 278.

The Chronic Diseases: their Specific Nature and Homœopathic Treatment. By Dr. Samuel Hahnemann. Translated by C. J. Hempel, M.D. Vol. IV. 12mo., pp. 378.

The Practical Astronomer, etc. By Thomas Dick, LL.D. Illustrated by 100 engravings. New York: Harper & Brothers. 1846. pp. 436.

Illustrations of Modern Mesmerism, from Personal Investigation. By John Forbes, M.D., F.R.S. London: 1845. 18mo., pp. 101.

A Dictionary of Practical Medicine, etc. By James Copland, M.D. Edited by C. A. Lee, M.D. Vol. I. 8vo., pp. 1254. And Part XII., pp. 144.

Examinations in Anatomy, Physiology, Practice of Physic, Surgery, etc. By Robert Hooper, M.D. Third American Edition. New York: J. & H. G. Langley. 18mo., pp. 250.

Homœopathy, Allopathy, and Young Physic. By John Forbes, M.D, F.R.S. London: 1846. 8vo., pp. 433. (From the Author.)

Report of the Pennsylvania Hospital for the Insane, for the year 1845. By Thomas S. Kirkbride, M.D., Physician to the Institution. Philadelphia: 1846. pp. 56. (From the Author)

Account of a Case of External and Internal Cephalhæmatoma, etc. By Charles West, M.D., Lecturer on Midwifery at the Middlesex Hospital, etc. London. 8vo., pp. 15. (From the Author.)

Report on the Progress of Practical Medicine in the Department of Midwifery and the Diseases of Women and Children, during the years 1844–45. By Charles West, M.D., etc. London. 8vo., pp. 44. (From the Author.)

Fragments of Medical Science and Art. An Address delivered before the Boylston Medical Society of Harvard University. By Henry Jacob Bigelow, M.D., President of the Society. Pp. 54. (From the Author.)

Lecture on the Necessity of the Study of Physiology. Delivered before the American Institute of Instruction, at Hartford, Aug. 22, 1845. By E. Jarvis, M.D., of Dorchester, Mass. (From the Author.)

Sources, Evils and Corrections of Professional Discontent. An Introductory Lecture, by John P. Harrison, M.D., Professor of Materia Medica and Therapeutics in the Medical College of Ohio. 8vo., pp. 18. (From the Author.)

Introductory Address delivered before the Class of the Albany Medical College, at the Commencement of the Session 1845–6. By E. Emmons, M.D., Professor of Obstetrics and Natural History. 8vo., pp. 24.

Lecture on Medical Obedience. Introductory to the Course of Theory and Practice of Medicine in the Medical Department of Pennsylvania College. Philadelphia: 1845–6. By William Darrach, M.D. pp. 15.

Physical Education and the Preservation of Health. By John C. Warren, M.D , Boston. 1846. 18mo., pp. 90.

New Elements of Operative Surgery. By Alf. A. L. M. Velpeau, Professor of Surgical Clinique, &c., &c. Carefully revised, entirely remodelled, and augmented with a Treatise on Minor Surgery. Illustrated by over 300 engravings; accompanied with an Atlas, in quarto, of twenty-two plates. First American, from the last Paris Edition. Translated by P. S. Townsend, M.D., &c.; augmented by several hundred pages of New Matter, under the supervision of, and with Notes and Observations by, Valentine Mott, M.D., &c., &c. In three volumes. Vol. II. New York: J. & H. G. Langley. 1846. 8vo., pp. 1092. (From the Publishers.)

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An Introductory Lecture, delivered by Gunning S. Bedford, M.D., Professor of Midwifery and the Diseases of Women and Children, in the New York University Session, 1845–6. 8vo., pp. 16.

We have received catalogues from Bowdoin, Yale, Berkshire Medical Institution, Geneva Medical College, Western Reserve College at Cleveland, Willoughby Medical College, for Session 1845–6; and the Medical Department of Transylvania University, Session 1845–6.

The following Medical Journals have been received in Exchange:—
The Dublin Medical Press.
The Dublin Journal of Medical Science, &c.
The London and Edinburgh Monthly Journal of Medical Science.
The Provincial Medical Journal.
The London Medical Gazette.
The American Journal of the Medical Sciences.
The Illinois Medical and Surgical Journal.
The New Orleans Medical Journal.
The Boston Medical and Surgical Journal.
The Western Journal of Medicine and Surgery.
The St. Louis Medical and Surgical Journal.
The Medical News.
The Philadelphia Medical Examiner.
The Bulletin of Medical Science.
The Southern Medical and Surgical Journal.
The Montreal Medical Gazette.
Silliman's Journal of the Arts and Sciences.
The American Journal of Pharmacy.
The American Journal and Library of Dental Science.
The American Journal of Insanity.
The Buffalo Medical and Surgical Journal.
The Southern Journal of Medicine and Pharmacy.

☞ All letters in regard to the *business* department of the Journal, and all remittances of money, should be addressed *exclusively* to the Publishers, J. & H. G. Langley; but books for Review, and Communications designed for publication, should be directed, *free of expense*, to the Editor of the New York Journal of Medicine, care of J. & H. G. Langley, New York. Persons at a distance, may direct parcels paid as above, under care of Barrington and Haswell, Philadelphia; W. D. Ticknor & Co., Boston; and Wiley and Putnam, London.

☞ *Erratum in Velpeau.*—We are requested, by Dr. Mott, to correct an important typographical error in vol. ii., American edition of Velpeau's Surgery. In page 304 (first paragraph), it reads "just *after* it had passed," whereas, it ought to be "just *before* it had passed."—Ed.

THE NEW YORK

JOURNAL OF MEDICINE.

FOR MARCH, 1846.

PART FIRST.

Original Communications.

ART. I.—*The Actual Condition of the Medical Profession in this country; with a brief account of some of the Causes which tend to impede its Progress, and interfere with its honors and interests; being an Anniversary Address delivered before the New York Medical and Surgical Society, on the* 3*d of January*, 1846. By F. CAMPBELL STEWART, M.D.

Gentlemen of the Medical and Surgical Society:—At a period when the attention of the profession has been called to the subject, by a recommendation from our State Medical Society, that a convention of representatives from all the medical corporations throughout the country, should assemble in this city in the month of May, for the purpose of considering its wants and endeavoring to remedy the evils by which our profession is surrounded, I conceive that I cannot better fulfil the duty with which you have honored me than by asking your attention to this matter, and endeavoring to lay before you an exposition of what I believe to be the actual condition of the medical profession in this country, and the causes which tend to impede its progress, or interfere with its honors and interests.

But before proceeding to discuss this subject, I wish distinctly to state, lest some of the remarks that I may have occasion to make may be misinterpreted, that it is not my aim nor my desire to attack individual associations. Occupying a strictly neutral position; bound by no alliance with cliques or parties; and feeling that I am influenced by none other than the purest motives, I shall, whilst disclaiming all feelings of prejudice or partiality, consider myself at liberty to discuss the question that I have raised in all its bearings—in a frank and free spirit, and without fear or hindrance.

First then, what is the actual condition of the profession in this country? and what is its relative position here as compared with that which it occupies in other countries?

In considering this subject we must draw a distinction between the social standing of the profession—the position which its members are allowed to occupy in society—and that which is accorded to it as a profession, and in consideration of its claims and intrinsic merits.

In its social relations to the community, I am proud to declare that the medical profession of the United States occupies a more elevated and lofty station than that enjoyed in any other country of the world. Here, owing to the nature and tenor of our institutions, members of the learned professions occupy the first rank in general society ; and in the absence of all hereditary distinctions, physicians, with lawyers, hold an enviable position, and are regarded by the community in so favorable a light as to be second only in its estimation to the pious and educated divine. The road to honors and distinction in every department of the public service, and in every station in life, is open to us as well as to others ; and we often see members of our profession occupying distinguished political situations of emolument and trust, from which, in the older countries of Europe, they are, for the most part, from the simple fact of their being medical men, almost wholly excluded.

Here, in all parts of the country, we are individually honored and esteemed ; in the smaller towns and settlements, we are looked up to on important occasions for assistance and counsel, and our opinions and advice ever command the most respectful attention and consideration. Our society is everywhere courted by the intelligent and honest citizen ; and we are always regarded in the light of honored family friends by those who employ us, and place a degree of confidence and reliance in our honor and integrity, which, whilst most flattering and grateful, should lead us to contemplate seriously the nature and extent of the obligations which it forces us to incur, and which it should be our duty and pleasure to render ourselves capable of discharging in a becoming and proper manner.

In some parts of the old world, so low is the condition of our profession in its relation to the general community, that physicians are considered rather in the light of hired menials, than as gentlemen and scholars, entitled by education to be regarded as on a footing of perfect equality with the most accomplished members of every civilized and refined society. Abroad, the medical man belongs to a caste which is considered comparatively low, and, although sometimes tolerated by his supposed superiors belonging to the higher circles, he is but rarely received either in England or France on a footing of acknowledged equality by the higher aristocracy, and in some parts of Italy and other portions of the Continent, he occupies a position almost degrading.

Here, on the contrary, we claim and receive from the community the high consideration to which we conceive ourselves to be entitled, and which, notwithstanding occasional attempts to injure us collectively, we always find freely accorded to us in our individual capacities.

It is this flattering and honorable social position which we occupy that contributes materially to excite the ambition of many of the thousand applicants for admission to our ranks, some of whom thus see a road opened for access to a society which it might be much more difficult for them to reach by other more laborious and circuitous routes.

Such then is the relation of medical men individually, to general society ; but what is the relation that they bear to it collectively ? How is the *profession* regarded by the public at large ?

That there is a great want of respect and regard for what is called the regular profession, is, I think, abundantly manifested by the unconcealed and open efforts to injure it, as evinced both by the encouragement of quackery in all its multiplied forms and varieties, and by a constant endeavor to find fault with, condemn, and ridicule the art, and those who practise it.

The action of the representatives of the people in the legislatures of some of our States, proves likewise that our profession is not held in high estimation; these gentlemen seem, by their course of action, to desire to cast down and destroy every barrier of protection which had been raised by their predecessors, and considered by them to be quite as essential to the welfare of the people generally, as to our interests. In some instances they have succeeded in throwing the practice of medicine open, and making it free to all who choose to engage in it, without requiring from them any guarantee of their capability to treat disease, or affording to the people the slightest protection from impostors, who, by arrogating the title of physician, may with impunity pursue a course of chance practice, calculated to produce the most serious consequences to their health, and endanger the lives of those who submit themselves to their care.

The evils resulting, not to us, but to the public, from the application of the principles of free-trade to the practice of medicine, are numerous and most serious, but it is not my intention to indicate them at present, and I will only reiterate the assertion, that as a *profession* we are not held in high estimation in this country. If required, other proofs in support of the declaration may be found in the instances which I shall cite, when I come to speak of the causes which tend to operate against our united interests.

Let us now examine the question, whether we are really entitled by our intrinsic merits to the same scientific consideration as our professional brethren in other parts of the world! In a word, is our standard of learning and acquirement as high as it should be, to entitle us to consider ourselves as on a footing of scientific equality with the physicians of other countries, and such as to justify us in demanding, as a matter of right, an unbounded confidence from those who employ us, and place faith in our professions of capability?

This is a most delicate question, and demands a careful and attentive examination. We are all, for the most part, unwilling to admit our inferiority in anything to which we have devoted a special attention, and in which we desire to be considered proficients; it is only natural and to be expected, that we should hold ourselves equal to others of the same calling; and it is but very rarely that we can bring ourselves to admit, particularly in the cases of professional men, that we have superiors.

At the threshold of this investigation, I am bound to acknowledge that, in science at least, the profession in this country is far behind the medical communities of other countries, and this I think is wholly owing to the wrong and faulty system of medical education established amongst us; a system so defective as not only to have attracted the attention of foreigners, but to have led to a loud call from the disinterested and well-informed portion of our own Faculty, for a thorough remodelling.

With the exception of some few attempts to support the present system, originating with parties whose position is such as to warrant the conclusion that they must be more or less influenced by personal interest in advocating it, I believe that the feeling may be considered as almost universal in favor of the adoption of a more extensive course of general and professional instruction, and the establishment of a higher standard of medical acquirement.

To aid us in investigating this subject, I will present a statement of what is required by our Medical Colleges of their students, before they will allow them to apply for an examination, or accord them the honors of a Degree, and by comparing these with the requirements exacted by the medical boards of other countries, we shall be able to see in what the difference consists, and why it is that our physicians, at least at the period when they first become such, are not entitled to be considered on an equal scientific footing with those of other parts of the world.*

At most, if not all the chief Medical Schools of the United States, it is exacted from Students who apply for Degrees, that they shall produce evidence,

1st. Of their having studied in the office of a Practitioner.

2d. Of their having attended during two courses of lectures at a Medical College.

3d. That they shall have composed a Thesis; and

4th. That they shall have complied with some minor general regulations.

There is no preliminary examination, and no means are resorted to for ascertaining whether a young man is capable, by previous preparation, of profiting by the lessons of his instructors, or likely to make hereafter a competent and useful Physician. He may be thoroughly well grounded in the various branches of science, and his general knowledge may be most extensive; or he may be, as I have known, so ignorant and illiterate as to be unable to write his own language, or translate the Latin of the Diploma which he is striving to obtain. He is not put to the proof, and no evidence is exacted of his having complied even with these few rules, other than his simple assertion, or at most the exhibition of his tickets, which is rather required as a proof of his having paid for them, than as any evidence that he has attended the lectures to which they give him admission.

Having fulfilled these obligations, he is admitted to an examination, and receives his Degree, or is rejected.

The character of this examination is generally such, that a student who cannot undergo it must be wofully ignorant indeed. Hence, the rejection of candidates is, with us, a matter of exceedingly rare occurrence, and almost all who have complied with the most essential requisite of paying their teachers, are sure to be honored with the title to which they aspire.

At all the principal Universities and Colleges in Great Britain, Ireland, and on the Continent, where medicine is taught, the courses of instruction are much more complete and perfect than with us. At London, Edinburgh, Paris, Dublin, and other seats of Medical schools, students are afforded many more, and much greater facilities for acquiring a thorough medical education, and the period of study is not only much longer, and the subjects taught more numerous, but the preliminary and final examinations are of a character to render it certain, that the candidate who obtains their Diploma must be a qualified and thoroughly well-educated physician.

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* For a detailed statement of the regulations established by the principal college in this country and in Europe, in reference to the Degree of M.D., see Appendix to this address.

The courses of instruction at our Colleges embrace, for the most part, six subjects, which are professed to be taught in two years, or rather in two periods of less than four months each, so that with a moderate degree of attention, and a fair share of common sense, any one, with us, may acquire the knowledge considered as necessary for a physician, and obtain a license to practise, after about *eight months'* college study! And this too under circumstances in every respect unfavorable; such as a continual and irksome attendance on lectures on different subjects, during a great part of every day, leaving neither time for study and preparation, nor for relaxation or dissection. More time is devoted in other countries to the study of the fundamental science of anatomy alone, than is allowed to our students for perfecting themselves in all the branches of a medical education.

Whilst for the most part, then, seven or eight months' attendance on lectures is required by the regulations of our Medical Colleges, in Europe four years are considered as scarcely sufficient; and that too after a preparatory course of study calculated to enlarge and strengthen the mind, and render it fit for receiving the more difficult and important professional knowledge which is to be subsequently imparted.

All the more important subjects, and especially practical anatomy, and clinical medicine and surgery, are there thoroughly taught. The student is not only required to dissect, but is examined on Dissection, whereas, here a very irregular attendance on the Dissecting-room, probably during a few evenings only in each session, is all that is expected of our pupils, and indeed, in some cases, they are notified publicly, beforehand, that though advised to do so, they will not be required to dissect at all. Whilst it is considered of paramount importance abroad, and is so in reality, little or no attention to Hospital practice is required from the student here. Some of our colleges exact from him that he shall purchase a ticket of admission to a hospital, when one is convenient, but there the matter rests. And this even is not always required; and if not obligatory on them to do so, how can it be expected that students, when they have so much else to attend to, will go to the expense of procuring a ticket, or after getting it, will take the trouble to attend the practice of these institutions? That they do not do so, is, I think, very evident, from the fact that out of upwards of six hundred in attendance at the New York Colleges during the present session, only about one in eight have applied for the privilege of visiting our City Hospital! And yet this is known to be the only one here to which they can obtain access. The all important branch of clinical instruction then is not taught to students here, at all events in a satisfactory manner; for the cliniques attached to the schools in this city, in Philadelphia, and elsewhere, though useful, can never present to them the advantages that they would derive from examining patients, and following their treatment, in a regular and well organized hospital, and under the direction of qualified teachers.

Botany, Medical Jurisprudence, Practical Chemistry and Pharmacy, Pathology, and some other subjects considered essential to a medical education abroad, are nowhere taught properly, or as separate branches, in the medical schools of our country; and the student's knowledge of them, if obtained at all, must be gained by close study and application at home, after he has gotten his diploma, and left college.

It is the want of a thorough and efficient course of education here, that induces so many of our young graduates to go abroad for the purpose of gaining knowledge which they ought to be able to obtain at home; and I may venture to assert, that if proper use was made of the advantages possessed by our large cities for affording medical instruction in all its departments, and if our schools would at once adopt a high standard of professional acquirement, Paris and London would soon cease to present the superior attractions which they now do, and our young men would seek at home the information which it now costs them so much trouble and expense to obtain in foreign countries.

It is most humiliating to us to know that none of our colleges are recognized by European schools as on a footing of full equality, and that alumni here are not thought entitled to be held as equals with students there. And yet such is the fact, and most keenly do some of our spirited and high-minded young men feel it to be so. I have known them ashamed to acknowledge that they were graduates, and the M.D., so coveted, and so ostentatiously displayed at home, at least whilst it is new, I have seen erased from their cards when abroad.

So satisfied are some of them that they are not prepared to defend the title with which they have been inconsiderately honored, that they prefer to appear simply as students, from whom much less is to be expected than might be looked for in persons bearing the full and highest honors of the profession. It is for the want of a thorough education here, that our young physicians are compelled to enter themselves as the students of students when they go abroad, and thus to admit, that though graduates, they are wanting in the knowledge possessed by under-graduates.

It is a gross error to suppose that the high standard of medical education established in Europe is the result of wealth, and that it is impracticable to introduce it into this country, as has been asserted by a venerable author here, whose lecture on the subject, and in defence of our present system, has been so severely criticised, that I shall make no other commentary on it, than to point to the bright examples to be found amongst the most eminent and renowned physicians of Paris and London, many of whom have had to encounter a degree of abject poverty unknown in our country, and who have, nevertheless, gradually risen to fill the proud positions which they now occupy.*

Besides the estimate in which it is held abroad, in what light is this subject considered at home? The editors of many of our medical journals admit frankly that our whole plan of education is most faulty; and numerous recent writers, in advocating the call for a general convention, declare that the defects of the present system are so glaring, that a change is absolutely required. One of them makes use of the following strong language in reference to the subject:

> "We have always advocated a higher standard of medical attainment for graduating in medicine, and a sufficient preparatory education to place physicians on

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* The celebrated Velpeau, one of the most distinguished men in our profession, was so poor when a student, that he was forced to live on coarse ammunition bread and water. For a long period his daily expenses were limited to *nine cents*, and he supported himself for three months, in Paris, on *twenty dollars*.

a par with the other learned professions; but we have seen so much of the levelling system; so much pandering to popularity; such audacious promises on the part of medical schools, to gull pupils; such pretensions to cheapness in board; such mock examinations for degrees; such drumming up of students; and such underbidding in the price of tickets; in short, such artifices, and tricks, and manœuvres, for the sake of putting a few dollars in the pocket, that we have almost lost our early faith in the practicability of medical reform, at least to that extent to which it ought to be carried in order to accomplish the desired end."

There is no school here, whose certificate our army and navy examiners can take as a sufficient guarantee of the qualifications of candidates for admission as medical officers into either of these branches of the public service; they are obliged to form a standard of their own, and the numerous rejections of young men, mostly graduates, whom they examine, show conclusively that it is higher than that of the colleges generally.*

The possessors of them do not always appreciate the diplomas which are so easily obtained, and which they in many instances know and feel that they do not deserve. A young man applied to me a short time since to take him as a pupil, and on my asking if he had yet undergone his examination, he answered me "yes, he was a graduate of such a college;" but with great naïveté added, "that he did not think he ought to have a diploma, or that it could be worth much."

A gentleman, likewise a graduate, in indicating to another, in my presence, some of the numerous advantages which he might derive from visiting Paris, stated that "he had, on obtaining his diploma here, considered himself to be a good anatomist, a good chemist, and a good surgeon; that he thought he was a competent physician, and quite as well informed in his profession as any one else. He had gone abroad, however, and he had been but a short time in France when he was ashamed to find how ignorant he was, even in the branches in which he had supposed himself accomplished. He soon ascertained that his whole course of stndy was to be gone over again, and that he literally knew nothing, and was far behindhand with junior colleagues with whom he was brought into contact."

A system then, which is so universally admitted to be defective, must stand in need of amendment, and it appears to me that a period has now arrived when a bold step may be advantageously taken in favor of reform, and the introduction of, if not a European, at least a higher standard of medical education amongst us; and the school or schools that shall adopt it, though they may for a time experience a loss in the diminished number of their pupils, will eventually, and certainly, find their reward in the increased value that will attach to their diplomas.

We can most of us recollect the time when the Edinburgh or London Degree was almost necessary for the physician who expected success in his profession;† it is now almost equally necessary for those who would succeed, to have enjoyed the advantages of Paris. The public, having no other sure guide, formerly esteemed a physician in proportion as the university from which he received his degree was estimated; and now that we have so many schools, and so many incompetent physicians, and are so surrounded by quacks—renegade doctors—or those who arrogate to themselves the title, people will begin to look about them again, and make inquiries as to the relative standing of the various colleges, with the view of employing those physicians who shall bear the diploma of that institution which is known to give the most full and perfect course of instruction.

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* "A medical board for the examination of applicants for appointment to the medical staff of the army, was convened in the city of New York, on the 1st of July last. Before this board 15 candidates were invited to present themselves, 10 of whom only appeared and were examined; and of these last but 2 were approved and recommended for appointment."—*Report of the Surgeon General U. S. Army.*

† There are, however, numerous exceptions to this general rule, for we have amongst us some fully qualified and highly accomplished physicians who are self-made men, and who never enjoyed the advantages afforded to those who study in Europe.

It would almost seem from the course pursued by them, that many of our colleges are disposed to offer bounties to young men, and entice them away from honest mechanic trades, to engage in the study of medicine.* So easy and cheap do they make it appear, is the effort necessary for gaining a license, that numbers are induced to study, who would never for a moment think of doing so, if moderate restrictions were imposed, and they were required to devote a reasonable proportion of time to attendance on lectures.

The result of this is, that hundreds gain entrance to the profession who are wholly unfitted for fulfilling the high duties devolving upon practitioners; and this evil must continue so long as the efforts of our medical schools are directed to the end of obtaining the largest classes, and sending forth the greatest number of graduates. So long as they trust for reputation on the number, rather than the character, of their alumni, our country will be annually flooded with imperfectly and half-educated physicians, many of whom must, from absolute necessity, be forced to resort to means for gaining a livelihood, calculated to degrade them in their own and in the public estimation, and to produce a ruinous influence on the profession.

I regret that time does not permit me to enter more fully into the examination of this important subject, which is worthy of the closest consideration, and demands the earnest attention of medical men. I have said as much, however, as the occasion warrants, and I will now proceed to indicate some of the causes, which, in my opinion, tend to interfere materially with the honor and interests of our profession.

These are of two kinds: such as are produced by the acts of the profession itself, and such as are caused by the acts of the community generally, or those not belonging to our society. Of these, the first, it appears to me, are by far the most important, and productive of incalculable injury; and I think that we might find, if we examined carefully, that many of the evils of which we have cause to complain, are the direct consequence of the suicidal course pursued by the profession itself; and that in fact most of the difficulties by which we are surrounded are occasioned by ourselves.

Can all members of our faculty conscientiously assert that they have ever acted with the view, and in a manner to promote the interests of the profession to which they belong? And are all guiltless of having at times pursued indirectly, if not directly, a course calculated both to impair the credit of the general body, and lessen the estimation in which it should be held by the public at large? It cannot be expected of any one that he should admit the charge openly, and yet we all know that there are numbers who feel, and who are obliged to admit to themselves, that they have too often pursued a course in furtherance of their own individual interests, which was calculated to impair that of the body generally.

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* At some of our country medical schools, students are allowed to pay their professors with due-bills, or notes, to be redeemed at some future period, when the young men shall have accumulated enough money to enable them to cancel the obligation.

The professional and social intercourse of medical men, in this city especially, is on a wrong and improper footing; there is to as great, if not to a greater extent here, than elsewhere, a degree of jealousy and unkind feeling which ought nowhere to exist.

It would appear that many of our body fall into the gross error of considering that their individual success depends on decrying their professional rivals, and indirectly leading patients to conclude, that they alone, of all others, are able and capable of rendering effectual assistance. This has been everywhere noted as a common and general fault of the Faculty, and those who indulge in the practice are most wofully mistaken in the result which they hope it may produce. I have yet to learn that a single instance can be found in our annals, in which eventual or lasting success has attended the exertions of individuals who have endeavored to gain a position by so unfair and dishonorable a course. The public is generally sufficiently versed in these matters to be able to distinguish between genuine merit, and boastful pretension, and it rarely or ever accords confidence, to those whom it cannot esteem. All who are in the habit of indulging in this very censurable and disloyal course, would do well to bear in mind the established truism "That every physician who decries another, injures himself by depreciating the general estimation in which his profession should be held." Or in the words of Mr. Percival:—

> "A physician should (from motives of interest) cautiously guard against whatever may injure the general respectability of his profession; and should avoid all contumelious representations of the faculty at large, or of individuals; all general charges against their selfishness or probity; and the indulgence of an affected jocularity or scepticism concerning the efficacy and utility of the healing art."

That this evil exists to a deplorable extent amongst us cannot be denied; and it is the more to be regretted, because it is so generally unjust, from the circumstance of its being almost impossible to ascertain the real qualifications of medical men (after graduation), and from depreciating language being frequently used in reference to individuals with whom the party has no personal acquaintance, and whose impressions are often formed from hearsay, or are the result of some pique, or supposed cause of complaint, for real or imaginary injuries, and rivalry.

A part of this evil results from the fact that social meetings of medical men are not of sufficiently frequent occurrence amongst us.* The advantages of this kind of intercourse are most manifest, and it should be heartily encouraged, as it always serves the purpose, by bringing individuals together in a friendly way, of engendering kindly sentiments, and exciting mutual regard and esteem, which will ever be accompanied by courteousness of demeanor and general respect.

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* It is, I am sorry to say, a very rare circumstance for the physicians of New York to meet together sociably at each other's houses, or indulge in an interchange of friendly civilities. Here, there are no convivial assemblings of those whose tastes and occupation should draw them frequently together; and although some laudable efforts have been made to break through the icy circle that surrounds us, they have not been responded to in a proper manner, and consequently have failed to accomplish the desired end.

The Faculty has been injured by the course pursued by some of its members, in reference to their intercourse with those, who are debarred by their own acts from being entitled to be considered on a footing of equality with honorable and respected members of our society. It is sometimes very difficult to draw the line of distinction between those members of the profession who retain a right, as honest members of it, to enjoy all its privileges and honors, and those who, by their acts, have forfeited all claim to its countenance and support. The moment, however, that it shall be proven satisfactorily, that a medical man has departed from a strict line of professional conduct, and pursued a course calculated to impose on the public, and degrade his calling, he should cease to be regarded as an equal by high-minded physicians, and it becomes their duty to expose him, and to refuse to lend him their aid and assistance in consultation.

I am happy to add, that I believe the evil resulting from this source is now at an end—at all events in our own city; for I do not know of any practitioner of respectability, who will now consent to consult with, or meet on a footing of equality, any one who is openly known to pursue a course at variance with the honor and interests of his colleagues.

Conscientious and highly honorable members of the Faculty have at times lent them the influence of their names, and given certificates to vendors of quack medicines, thereby contributing, probably, without intending it, or indeed, without considering that such must be the result, to favor imposture and weaken the bonds by which the profession should be united to the public. Such a course is sometimes pursued even now, and I believe it to be a most fertile source of mischief and injury to us. When the signature of a regularly graduated physician is appended to these notices of drugs, the valuable qualities of which are certified to by him, how can it be expected that the public shall refrain from purchasing them? We have had some striking examples of the evils ensuing from the practice, and we should unite in our efforts to put a stop to it.

By our charges we sometimes excite in the public mind a feeling of doubt and distrust; in some instances by demanding more for our services than they are really worth, and in other instances so far undervaluing them, or rather allowing them to be undervalued, as to lead people to think that, when thus tacitly acknowledged to be worth so little, they may in reality be worth nothing. This is one of the great difficulties with which we have to contend, and unfortunately it would scarcely seem capable of being remedied. No fixed and satisfactory tariff, applicable to all cases, can be established, and it is a matter which had probably better be left to the judgment and discretion of each individual. A just medium in charges, however, should always be observed, and we should never be so unreasonable as to ask $100 for a single and inactive consultation visit in the city, nor yet condescend to allow our services to be estimated at the value of ten cents a visit, or one shilling for vaccination or venesection. When persons are really able to do so, they are, for the most part, both ready and willing to grant a fair and adequate remuneration for professional services, and when too poor to pay more than the paltry sums last indicated, we should refer them to the public charitable institutions provided for them, or, at all events, a feeling of pride should lead us to reject all compensation, and find our reward in the conscious pleasure of doing a good action.

Feuds amongst ourselves are of too frequent occurrence ; they should always be condemned and avoided, as they are the means of retarding the progress of the profession, and frequently throw impediments in the way of science. These, however, when strictly confined within professional limits, cannot produce the great and serious evils which must ever result from their being made public. All of our faults and errors should be kept within our own bounds, and on no account should medical men allow their feelings to get the better of their judgments, so far as to lead them to commit a positive and irreparable injury on the profession, the evil consequences of which they are sure to experience themselves, in the depreciation of public respect and confidence in their profession. They should recollect the advice given by the venerable Hufeland, and bear in mind his declarations on this subject, to the effect that:—

> " In proportion as the public is made acquainted with the faults and defects of physicians, and as they are made to appear suspected and contemptible in its eyes, so is the estimation in which medicine is held, lowered ; and as this diminished confidence is extended from the science to those who practise it, the censurer soon experiences the consequences of it himself. Public malice against physicians would certainly be less indulged in, and their faults would much less frequently furnish food for general conversation, if they never themselves set the example."

Our intercourse in consultation is not regulated by any well-understood or generally approved rules, and hence there are occasionally serious difficulties occurring in instances in which they would not occur, if good and established forms were universally known and rigidly adhered to. That advantage is sometimes taken, by those called on for consultation advice, to supplant the regular or family attendant, is well known ; and hence, that degree of confidence so necessary for the interests, both of the patient and the profession, cannot exist where such a result may even be apprehended. It is impossible to conceive that a more degrading and baneful influence could be brought to bear against our body, than a practice of this kind, and I cannot, for my life, see how an honorable and liberal-minded man could for a moment indulge in so disreputable a habit. With those who profess the feelings of gentlemen, the compliment conveyed in the simple fact of confidence being reposed by a brother practitioner, to the extent of leading him to seek for friendly advice and assistance, from a source from which he thinks that he may obtain both, is more than enough to outweigh any feeling of sordid interest which might arise in his breast. The simple fact of his being called to a family or patient, with the consent, and generally at the solicitation of the ordinary attendant, renders it impossible for him, at any future period, to attend such family or patient, without a full and honest understanding with the other, unless in cases of emergency, and then only as a *locum tenens*, until the regular attendant can be found.

It is much the practice with us to entrust our patients to the care of some friend during temporary absences from business, or in case of sickness, and any undue attempt to supplant those for whom we act, is as unjust as it is dishonorable, and I regret ever to have learned, what I did with shame, that a distinguished physician of our city had urged to one in a neighboring town, as an excuse for not prolonging a visit that he had made, "that he was afraid that if he did not return home, those left in charge would steal his patients from him."

I have now alluded, but very cursorily however, to some of the faults of the faculty itself, which are, I think, positive causes operating injuriously on our general interests. The remarks that I have made, though applying in full force to the condition of things amongst us, are by no means confined exclusively to the profession in this country; the evils to which I have called attention, are most of them acknowledged to exist elsewhere; they are not for this reason, however, the less serious, or the less to be regretted; it behoves us all to unite in endeavoring to remedy them; and I feel confident that, as far as its influence and power extends, this Society will, whilst pursuing its course of general usefulness, strive to inculcate sound and wholesome doctrines in Medical Ethics.

I will now proceed to point out some of the non-professional causes which tend to produce an injurious effect on the interests of the faculty.

The influence of the Press is severely felt by our profession as being frequently exerted to its prejudice and discredit.

The most prominent and striking manner in which this injury is experienced, is through the facility afforded to Quack advertisers, for inserting in popular and extensively circulated papers, notices of their secret remedies, and astonishingly successful modes of treatment. To such an extent has this evil grown, that whole columns of our most respectable newspapers are filled with them. A recent writer declares that he had counted eleven out of twenty columns comprised in one paper, filled with these quack notices.

It is wholly impossible to calculate the amount of injury that accrues to the community, as well as to us, from this pernicious and degrading practice. For, besides lending to impostors, facilities for puffing and making themselves known, these advertisements are frequently of a character both indelicate and criminal, producing a baneful influence on public morality, and often leading to the commission of offences against the laws both of God and the State.

I am aware that the space occupied in newspapers in the manner indicated, is well paid for, and that it may appear unfair and unreasonable to expect their proprietors to deprive themselves of so fertile a source of revenue. But have these gentlemen no other object than pecuniary gain? Are they not bound, as directors of public opinion, and as guardians of the public interests, to abstain from pursuing a course calculated not only to injure us, but directly prejudicial to the public weal? Is it so clear that they would necessarily incur a loss by refusing to promulgate information such as is usually contained in these notices? If they could be induced to devote the space occupied in this disreputable manner to miscellaneous information of a general character, they would soon find their subscribers to increase in a proportion amply sufficient to compensate them. The experiment has already been tried abroad, and we hear of no complaints of loss from those interested in such journals as have refused to serve as a medium for imposition.

The opinion of the publisher of one of these papers on the evils resulting from the course generally pursued, is expressed in such strong and forcible language, that I cannot resist the temptation to quote it. He says,—

> "We fell into the current and followed the bad example of pre-existing periodicals; but reflection has led us to see our mistake, and we hasten to repair it, assured that we shall give satisfaction to all our readers, who properly estimate the true character of modern quackery, which is one of the vilest and foulest of all foul and vile vocations, and is sustained to an incredible extent by fraud, forgery, and falsehood, and fraught with delusion, disease, and death. To publish their nostrums is to partake of their deeds. To receive their money is to share their spoils and aid them in making war upon mankind."

May we not hope that the example set by this Editor may be speedily and generally followed on this side of the Atlantic, and that editors here may likewise be found—

> "Cheerfully to abandon the publication of all advertisements of quack medicines, which will be an act of homage to their own taste and judgment, no less than a concession to the strongly expressed opinions of some of their best friends, who, with ourselves, deeply deplore the disease and mortality occasioned by the nostrums of medical quacks, published daily in this great metropolis."

By following so independent and wise an example, this foul blot on the body of our Press will soon be entirely and permanently erased.

But this is not the only complaint that we have to make against publishers and editors in this country. We have to find fault with many of them for their editorial encouragement of new systems, and innovations on our established methods of practice, by which, if possible, more than by inserting advertisements, they injure us, and make dupes of the public. The frequent, and often well written articles which appear in the editorial columns of our newspapers, in praise of various quack systems of medical practice, and urging upon the community their value and importance, do much harm. For, besides being more generally read, they carry with them a great degree of weight, as emanating from individuals supposed to be impartial, disinterested, and capable of forming a correct judgment.

The Press is likewise guilty of injustice towards us in sometimes publishing garbled or incorrect reports of the acts of medical men, or bodies of medical men, which are calculated to cast ridicule on them and on the profession to which they belong. The professional transactions of Medical societies, and the reports of medical lectures, are not proper or fit subjects for insertion in other than medical journals. But, at all events, when they are published, it is but a matter of common justice to report them correctly and with accuracy.

The remarks sometimes made by the Press in reference to dissection, are often injudicious, and calculated to maintain feelings of prejudice against it, and against those who are obliged to resort to it. Practical anatomy is one of the branches of our profession, with which every medical man should be familiar, and as it is impossible that a proper and correct knowledge of it can be obtained otherwise than by the actual dissection of dead bodies, it appears to me that the intelligent writers for newspapers would be doing a positive good, if, in place of exciting their feelings by using harsh language in reference to this subject when it is spoken of, they would endeavor to bring people to view it as indispensable for their own interests; as, without it, it is wholly impossible for us to qualify ourselves to make good physicians or skilful surgeons, the influence of the press should be exerted to lead the public to look upon it as a matter of course, and our authorities should be induced to make suitable legal provisions for furnishing students with the means of prosecuting their studies in this department of science.*

I think we have fair grounds for making complaint against the legal profession, for interference with our interests, in the manner in which charges are sometimes given to juries, and examinations sometimes conducted in cases of a medico-legal character.

I need not remind you that, in their endeavors to get evidence from medical witnesses, lawyers often travel out of their way, and go far beyond the record, in order to endeavor if possible—not to shake the testimony of those whom they may be examining, or cross-questioning; for this they have a perfect and undeniable right to do if they can; it is their duty to get all the facts of a case, and elicit the truth from every source—but to impair the confidence of a jury, in medical testimony, as such. They are often satisfied if they can make it appear that a physician falters, or is unable to answer at once, and without a moment's hesitation and reflection, all and every question that they may choose to put to him; forgetting that whilst theirs is an exact science, ours is as yet far from being such, and that an apparently trifling question may involve so much, and be capable of so many various interpretations, that every honest and upright man will naturally pause and hesitate, before pronouncing an opinion on which much may depend, and which it is often requisite for him to study well, before he can come to a conclusion that shall be satisfactory even to himself. Does a lawyer make up his mind, and pronounce an opinion directly, when a legal question is submitted to him? Undoubtedly not; he demands and takes time to consult his books and the various authorities on the subject, and after due reflection and study, and a repeated and calm examination of all the facts and bearings of the case, he decides, and returns an answer to his client. How then ought it to be expected of us, that we should be able to reply, without timely consideration, to the many futile and irrelevant questions that are often put to us by counsel? Have we no authorities to consult, and no examinations to make before we can come to a correct conclusion? Assuredly we have; and from their great number, and the want of established standards to go by, as a general rule, we should have much more time even allowed us, than would be accorded to the lawyer, in which to make up our minds.

Though an excuse may sometimes be found for the course pursued towards us, by examining attorneys, whose task, I am ready to admit, is occasionally a difficult one, I conceive that none whatever can be urged in favor of judges, who, in summing up evidence, and giving charges to juries, occasionally make use of language calculated to produce an unfavorable impression against medical testimony, and thus indirectly against the profession.

We have two striking examples of the existence of the evil of which I complain, recorded in the *New York Journal of Medicine;* the one as occurring in a case of trial for malpractice, in vaccinating on the arm, but not exactly at that portion of it usually selected for this operation; and the other, very recently, in a trial for murder and arson.

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* It is but just to state that, since this address was delivered, an editorial article has appeared in one of our most popular city journals, noticing and advocating the call for a National Medical Convention, and admitting the existence of some of the evils here complained of.

In the first instance, the Judge, one of the most eminent in a neighboring State, after listening to the positive testimony of most intelligent and competent medical witnesses, which testimony tended to exonerate the operator from all blame in the case, is reported to have charged to his jury, "that in performing the operation of vaccination or inoculation, the physician is liable for all consequences if he neglects the usual precautions, or fails to insert the virus in that part of the arm usually selected for the purpose; notwithstanding many other parts of the body might be proven to be equally proper, and even more suitable localities;" and he is reported to have gone on to illustrate his position, by likening us to common carriers, who would be liable to damages, if, in the transportation of public or private property, they departed from the usual route.

As might well be supposed, the jury, under these directions, brought in their verdict against the physician, and awarded heavy damages, besides the costs. Let us hope that this very learned gentleman may never require the services of a surgeon, who, in order to save his life, might have to modify an operation, or depart from a usual course; for in such case, he might fear the consequences, and hold himself justified in refusing to interfere.

The other instance to which I have alluded, occurred in the trial of "Polly Bodine;" it is, if possible, more serious than the one which I have just briefly narrated. It may be recollected that, in this case, physicians were called upon to institute a post-mortem examination of the remains of a female and child, who were supposed to have been murdered, and afterwards burned. These physicians discharged their duties with credit to themselves, and in a manner which should have given general satisfaction, as far as they and their evidence went. But what acknowledgment did they receive for their performance of the unpleasant task imposed upon them—one for which I may venture to say they were allowed a very inadequate, if any pecuniary compensation at all?—why, the presiding Judge took occasion, in his summing up to the jury, to make these uncalled for and unjust remarks:—

> "Was the death here by violence? Unfortunately very much of the difficulty which we now encounter, at this stage of the case, arises from the very inadequate manner in which the physicians discharged their duty. Had they made a judicious, active, and scientific post-mortem examination, they could have increased, in a great extent, the evidence of the guilt or of the innocence of the prisoner; and it is greatly to be regretted that this was not the case. They did not even make a memorandum of the examination, such as it was. They made no inquiry whether there had been strangulation or suffocation, whether poison, or some narcotic drug, had been administered; even their examination with respect to the marks of violence was imperfect and unsatisfactory. They have left us, therefore, in that state of uncertainty, in regard to the cause of death, which is very much to be regretted both by you and me."

When the acumen of judges and lawyers is insufficient to detect whether a prisoner is guilty or innocent, it seems rather hard to throw the blame upon the unfortunate doctors whom they may have called upon for assistance, particularly in a case where, from the testimony of the medical gentlemen alluded to, it appears that the bodies submitted to their examination were so much charred and altered, that it was impossible to derive from their inspection more satisfactory or accurate information than that which they obtained and communicated to the court. I would partake with these gentlemen of the gratification which would be afforded to us all, if the learned judge would inform us by what means we could be able to obtain the information which he charges them with carelessness in not obtaining. I fear it would puzzle that prototype of wisdom—as he is always referred to as an ultimate resource—the Philadelphia lawyer—or even their honors themselves, to do more or better, than was done by the respectable medical gentlemen implicated in the cases to which I have alluded; and I can but think that they would act more wisely, and more in conformity with the ends of justice, by augmenting, rather than depreciating the value of medical testimony.

Gentlemen, we are entitled to a little more courtesy in these matters from our brothers of the bar; and as the most important results follow from it, and the greatest stress should be laid upon the evidence of physicians, it would appear to be the soundest policy, and a public duty, so to conduct the examination of medical witnesses as to get at the positive truth, and elicit all the facts of a case, without endeavoring to make an impression against their evidence, which must affect a class, the object of all whose scientific researches is the elucidation of truth, and whose collective aim and desire is to be useful to their fellow-men.

Besides the manner in which I have indicated, it is asserted that members of the legal profession are frequently active propagators of new theories and quack notions, all of which tend more or less to the positive injury of our profession. A late writer says, in relation to this subject:

> "The lawyer himself, though he sees his own profession hemmed in by the strict limits of a prescribed education, and by a formidable array of antiquated technicalities, thus opposing to the intrusion of quackery a firm, though time-worn and moss-covered wall that it cannot scale—even he is often seen encouraging in our profession empiricism of the grossest kind, and perhaps cheers on and assists an ignorant populace in pulling down our modern wall, which has been so recently built that its uniting cement is yet hardly dry."

These remarks were appropriately introduced into the address from which they are quoted (Dr. Hooker's Dissertation), and although I do not think that lawyers are as often given to the encouragement of quackery as many other members of the community, I do consider that, being highly educated and accomplished scholars and gentlemen—fully capable of appreciating the difference between what is absurd and what is rational—between ignorance and intelligence—they should *always* discountenance the former, and on all occasions lend their influence to the furtherance of science.

We feel severely the influence of the clergy, as operating against our collective interests, and through their countenance of empiricism, to the positive detriment of the public at large.

Let me speak with reverence of the ministers of God, whom we are all taught from our earliest youth to honor and respect, and for whose holy calling I entertain feelings of the greatest veneration; and let us consider the course that is pursued towards us by many of that body, as the result of thoughtlessness and want of consideration, rather than as an evidence of ill will, or intentional desire to injure us, and deceive such as confide themselves to their spiritual charge, and place unbounded confidence in assertions supported by the testimony of pastors whom they revere and esteem.

I would on no account lay myself open to the imputation of making an unjust or harsh attack on ministers of the Gospel; and yet when their influence is sought, and their credit obtained, to defraud the public by recommending persons wholly unworthy of regard, it becomes a duty to indicate in plain terms the evil consequences that ensue from such patronage being extended to such individuals, and likewise to show how detrimental is such a course to the interests of a profession with which they are so closely allied, and the object of which is, as well as that of their own, to do good, and to heal and succor such as stand in need of assistance. No class of men have a better opportunity of witnessing the untiring devotion of physicians to their sick charges than clergymen, who are so frequently brought into contact with them in the abodes of sickness and misery, and in the hour of death; none are better informed than clergymen of the innumerable sacrifices made by medical men in ministering relief to that unfortunate class of the community, whose want of means and poverty, render it impossible for them to proffer or afford any remuneration to those who have assisted them in their sufferings, and relieved their wants. Clergymen are, or ought to be, aware that the services rendered by medical men to all our public non-political charitable institutions are entirely gratuitous, and that in most instances they do not receive, directly or indirectly, any consideration whatever for their loss of time, anxiety of mind, and the numerous inconveniencies to which they are subjected. Do they not know that our hospitals, asylums, and dispensaries are regularly visited and carefully attended by honest, honorable, and competent members of that profession whose credit and usefulness they should endeavor to extend, and not to impair?

Again, are not the clergy held in the highest respect and esteem by our profession at large? Do we not tender them our professional services gratuitously, and with free cordiality? Are not theological students, and the children of divines, permitted to attend the lectures of our medical colleges without the usual fees being required from them? For these and numerous other reasons—not urged in a boastful spirit, for it would but ill become us to ask credit for charitable acts which carry with them their own reward, and for which we desire no remuneration other than that afforded by a satisfied conscience, and the pleasure derived from the knowledge that we are fulfilling a great Christian duty—for these, then, and for many other reasons, I conceive that our profession has strong and peculiar claims on the preachers of religion for their countenance and support, and it appears to me that they should be the last men in the world to lend the influence of their sacred characters and position to those who are ever so ready to avail themselves publicly of both.

It is a notorious fact, that the venders of quack medicines, and what are usually called "advertising doctors," exert themselves to the utmost —and too often with success,—to obtain the signatures of clergymen, or certificates from them attesting to the high virtues of their medicines, or the superior skill and knowledge which they possess. In proportion to the number and influence of the clergymen whose interest they can thus bring to bear, is their success. So far is this system in some instances carried, that the fortunate individuals in whose favor they operate, succeed, in a comparatively short space of time, in amassing large fortunes. I do not pretend to assert that the success of these persons is to be attributed to the influence of clergymen's certificates alone, for without a certain degree of practical knowledge in the other arts of gulling, and an abundant stock of assurance and cool impudence, their exertions could not be crowned with entire success. I am only maintaining that this is one of the most sought for and valuable adjuvants that the charlatan can obtain, as through its means he may, at least, hope to gain notoriety and consideration from congregations whose ministers recommend him and his drugs in terms of high praise and commendation.

In support of this assertion, and to illustrate how much importance is attached to a clergyman's name, I will allude to an advertisement which has long been a standing one in an extensively circulated daily paper. It is headed, appropriately enough, "Remarkable Cures," and after describing, very briefly, some three or four desperate cases, all of which were, of course, speedily and perfectly relieved, and which are well calculated to strike the minds of non-professional persons as being truly wonderful proofs of the dexterity and skill of the advertiser, it concludes with a certificate from no less than six reverend gentlemen, to the effect that they have witnessed his astonishing performances, and highly recommend him as "safe and skilful" in the treatment of the diseases which he professes to cure.

I attach more importance to an advertisement of this kind than I should probably do, were it not that the names of the reverend endorsers are known to the public, and considered by it as occupying respectable positions, in which they can command a certain degree of influence. I would ask the eloquent Baptist clergymen; the learned Catholic priest; and their reverend co-signers, what they conceive to be the object and aim of a notice of this kind? Whether they have thoughtlessly appended their names as an act of charity, and with the view of lending the assistance of their influence, to an individual whom they conscientiously believe to be worthy of their confidence and esteem? Whether it is from the desire of seeing their names daily circulating in print? Or whether it is that they truly think, that they are conferring a benefit on the public, in recommending to its notice and consideration, a person whom they *in their hearts* believe to be *better* instructed, and *better* able to afford relief in the class of diseases which he treats, than others? Are they sufficiently versed in the knowledge of our science to be able to vouch for the learning and skill of an operator? Or do they infer from the advertiser's diploma, which they have doubtless inspected, and which is presumed to have been obtained after a careful and sufficient examination, by those competent to judge of his capabilities, that they are at liberty to recommend him as both "safe and skilful?"

I might adduce numerous other instances, in support of the assertion, that the influence of the clergy is often used to further the objects of those who seek for notoriety and patronage through advertisements in the public prints, and to the positive detriment of the medical profession. The one instance, however, already cited, is amply sufficient to illustrate the fact, and there is no further necessity for particularizing.

It would scarcely be believed that clergymen, though they might be willing to sign certificates, and vouch for impostures, would so far forget their duties, and the sacred character of the religion which they profess, as to permit the churches over which they preside, and which are dedicated to the worship of God, to be used as theatres for the exhibition of shows and juggleries; and yet, that this is occasionally done, may be easily proved, and I now hold an advertisement announcing, that, "by request," a *lecture on "Animal Magnetism"* will be delivered, on an evening indicated, in a certain church, belonging to a sect held to be one of the most devout amongst us; and this advertisement goes on to state that persons will be magnetized; and closes with the very significant notice that "twenty-five cents will be charged for admission."

The question may be asked, how can such a use of a holy temple, though admitted to be wrong, tend to the injury of the medical profession? I reply, is it not well known that these pretended clairvoyant magnetizers assume, unquestioned and unlicensed, the high duties of the Physician, and pretend, with the aid of something like supernatural lights, to be able to elucidate the most intricate pathological states, and suggest remedies to repair evils, the existence of which they are alone acquainted with? Do they not sometimes assume, or have awarded to them, besides his duties, the honored *title* of the Physician, and thus not only defraud the public, but do a positive injury to the profession of which they are supposed to be members? It is for these reasons, then, and because it is a profanation of the house of God, that we should call upon the clergy to pause, before they allow the temples committed to their charge to be violated in the manner that I have pointed out.

But in the remarks that I make on this subject, let it not be for a moment supposed, that I condemn or censure the whole mass of clergymen for the faults or errors of a few; I am well aware that the most respectable and worthy portion of the members of the holy order of religious instructors very rarely accord their influence to unworthy objects, or intentionally sanction measures calculated to degrade the standard of public morality, or act injuriously on the welfare of the general community. Still, as the evils of which I complain are no chimera of the imagination, and do in reality exist to an extensive degree, I have thought it both opportune and proper to point them out. By directing attention to the subject, we may lead educated and respectable clergymen, of extensive influence, to discountenance openly such irregular and overt acts on the part of their religious associates, which tend as well to the degradation of their own order, as they are calculated to act injuriously upon the interests of our Profession.

Of the influence of Quackery as operating to the injury of our profession here, I shall have but little to say. That it occasions a large pecuniary loss to us cannot be denied; but when practised openly, and by persons not *bonâ fide* members of the faculty, I do not conceive that it acts in a manner otherwise hurtful to our interests or reputation.

It is only when degenerate members of our own body condescend, from the desire of pecuniary gain, to embrace the trade of the charlatan, that they are capable for a time of influencing public opinion, and may, until found out, which they invariably have been, and always will be, sooner or later, produce an impression injurious to our general character and interests.

I consider it bad policy, as well as bad taste, to indulge in abusive language against this class of persons, who should always be left to the upbraidings of their own consciences, and that severe and most keenly felt punishment which consists in an entire exclusion from their society, and from all association with their professional contemporaries. They may succeed for a time, and accumulate money, but what shall repay them for loss of caste, and that inward feeling of shame and degradation which they must experience on finding themselves despised and rejected by their fellows, and eventually sinking to an oblivion from which they may never again hope to emerge—leaving behind them when they die, as an inheritance to their children, a patrimony which, though it may be rich in the blessings of the world, can never be disconnected from the recollection of the manner in which it was obtained?

These persons are most truly to be pitied; and their bowed head, and downcast look, evincing shame and inward suffering, should rather excite in our breasts feelings of commiseration than of ire; and although we can never permit ourselves to regard them in the light of fit associates, we should charitably hope that they have been led astray, and that their minds are so constituted as to render them incapable of experiencing, in its full force, that acute sense of degradation which would be so severely felt by honorable men of cultivated intellect.

That some few of them honestly believe in the virtues and superior advantages of a system that they may have adopted, is most certain; but that numbers of them profess what they cannot believe, and do not practise, is equally certain, and may be easily proved; it is the latter class to whom I would have these remarks apply—those who make use of a novelty as a stepping stone to success, and cheat the public by promising to pursue a course which they know to be wrong, and which they rarely, if ever, in reality follow.

There can be no harm in it, nor can a physician be justly blamed for practising according to any method that he may conclude, after proper study and inquiry, to be best; it is his duty to follow the course that he conscientiously believes will prove most conducive to the interests of his patients; but, then, he should do so quietly and unostentatiously—as a man who is entitled to the privilege of judging and acting independently—and scorn to call himself, or allow others to call him, the blind follower of a master, or of a particular and exclusive system, for the purpose of attracting attention, and gaining notoriety; thus acting the part of an impostor, whose province and aim is to deceive. The answer of a friend of mine to a lady, when questioned by her as to what "*class* of doctors" he belonged, will illustrate what I desire to say better, probably, than I have explained. "Madam," said he, "I am a physician who has studied his profession in all its branches and departments; I have examined, and continue to examine, every new theory and everything proposed as useful, and I practise in all instances for the good of my patients."

I would congratulate the Society upon the gradual declension from public favor and sympathy which Animal Magnetism, Homœopathy, and similar delusions are now daily experiencing, as it evinces a return of the sound common sense of the people, which has been for a time diverted by plausible theories and amusing practical exhibitions.

All that might in any way be gleaned of useful or interesting, from these innovations, has long since been adopted by the regular profession, and incorporated into our system of treatment. As was our duty, we have examined and studied thoroughly, as it has ever been our interest to do, everything that has been supposed to be calculated to extend our field of knowledge, or enable us to render ourselves more useful to our fellow creatures; what little wheat has been met with, has been most cautiously and industriously separated from the mass of chaff with which it was encumbered, and although the grains are found to be both small and imperfect, they may possibly produce, if properly cultivated, some little fruit.

No sooner, however, is one method of imposture on the wane, than we find another brought forward to supply its place; so it has ever been, and so it must and will be always. Homœopathy, lately so fashionable amongst us, finding no resting place in Europe, at least out of Germany—scouted in France, where its absurdities were fully demonstrated by positive and actual experiment—rejected in Italy—discountenanced in England—some few years since took its flight across the Atlantic, and implanted itself in our soil. Here it took root, and after supplanting Thomsonianism, and making sad inroads in the fertile fields of the "Herb Doctors," it flourished for a time. Its day, however, is now nearly at an end, and it is rapidly retiring before the enterprising and successful rivalry of Hydrosudopathy, and the Crono-Thermal system, which, likewise, will have their turn, and flourish until novelties of more recent date, such as the Russian "Mud Baths," or perhaps a revival of the old "Water Casting," come to usurp their places and their profits.

All the endeavors of the profession can never accomplish much against new and plausible medical theories, and by far the most prudent and the wisest course is to abstain from all abuse against them. When asked his opinion of their merits, it is the duty of the upright and conscientious physician to express it frankly, and if in disapprobation, let it be done in courteous language, devoid of all abusive epithets. By such a course we are sure to obtain a fair hearing; and our friends will be ever ready to acknowledge the force of remarks and reasoning directed to their understanding, and which shall be unaccompanied by evidences of personal pique, or the expression of feelings of dislike and hatred, evincing undue prejudice, or a desire to condemn unheard.

Having indicated, in a very imperfect manner however, some few of the many evils that exist in our profession, and endeavored to convey a just impression of its present condition, and of some of the causes which operate to injure it, I shall not trespass longer on your time by offering suggestions as to the best and most proper means for remedying them. The most important, and perhaps the only subject entirely within the control of the profession, is that of education. But I leave this very difficult and embarrassing question to the united wisdom of the gentlemen who will, I hope, shortly assemble in our city for the special purpose of investigating it. Amongst them there will doubtless be found competent and able representatives of this Society.

APPENDIX.

Regulations of the Principal Medical Schools in the United States and in Europe, in Relation to the Degree of M.D.

I.—UNITED STATES.*

University of Pennsylvania.—"The following are the Rules in force in relation to the Degree of Doctor of Medicine.

"I. The candidate must have attained the age of twenty-one years, have applied himself to the study of Medicine for three years, and have been, during that time, the private pupil, for two years at least, of a respectable practitioner of Medicine.

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* It will be perceived that the oldest and the most flourishing of our Schools have been selected as standards; their course of instruction and requirements are believed to be quite as extensive as those of any Colleges in the country.

"2. The candidate must have attended two complete courses of the following lectures in this Institution:—Anatomy; Theory and Practice of Medicine; Materia Medica and Pharmacy; Chemistry; Surgery; Obstetrics and the Diseases of Women and Children; Institutes of Medicine.

"3. The candidate must also have attended one course of Clinical Instruction in the Philadelphia Hospital (*Blockley*), or the Pennsylvania Hospital, or some other Institution approved of by the Faculty of Medicine.

"4. Medical students who have attended one complete course in a respectable Medical School, where the attendance on two complete courses is necessary to a degree, where the same branches are taught as in this, and which is placed upon the *ad Eundem* of this school, are permitted to become candidates by an attendance here upon one full course. They are also exempted from the payment of fees upon attending here a second term.

"5. When a candidate applies to the Dean for admission, he must exhibit his tickets to prove that the above Rules have been complied with.

"6. The candidate, at the time of his application, must deliver to the Dean of the Medical Faculty a Thesis, composed by himself, on some medical subject. This thesis is referred to one of the Professors, who shall examine the candidate upon it, and make his report thereon to the Medical Faculty.

"7. When a candidate is rejected, his essay will be retained by the Medical Faculty.

"8. When a candidate withdraws his essay before examination, he will, upon re-application, be placed at the foot of the list.

"9. The essay must be in the candidate's own hand-writing, and must be written uniformly on letter paper of the same size, the alternate pages being left blank.

"10. General bad spelling in a Thesis, or general inattention to the rules of grammar, will preclude a candidate from examination for a degree

"11. A Thesis may be published by the candidate if he desire it, the permission of the Professor by whom he was examined thereon being first obtained; but no alteration shall be afterwards made in such thesis without the consent of the said Professor.

"12. The voting on the case of each candidate is by private ballot, and three negative votes shall reject him.

"13. The candidate shall pay the fees of graduation, at the time of his examination, or before receiving notice of his success; and before his name can be entered on the Register of passed candidates, for the purpose of being reported to the Board of Trustees and included in the mandamus for a Degree.

"14. Candidates who have passed their examination, and in other respects complied with the regulations, are to be reported by the Dean to the Provost, who will communicate such report to the Board of Trustees, in order that, if approved of by them, their mandamus be issued for conferring the Degree.

"15. The Degree will not be conferred upon a candidate, who absents himself from the public Commencement, except by special permission of the Medical Faculty.

"16. Graduates of Medical Schools, on the ad Eundem list, by attending, on a full set of Tickets, one complete course in this Institution, are put upon the same footing with students who have attended two complete courses here.

Rules of Examination for the Degree of Doctor of Medicine.

"The names and essays of the candidates are to be presented to the Dean on or before the first day of February in each year. The candidates are then to be divided, either by their own arrangement or by that of the Dean, into classes of eight persons each.

"These classes will be designated numerically by lot, and then formed into groups of seven each.

"The examinations will begin regularly on the last Monday of the Session.

"No person's name will be received on a class unless his essay be in possession of the Dean; nor is his name to be attached to a class by any other than the Dean, unless he shall have signified his desire to that effect.

"The classes are to call at the houses of the several Professors, or at some other place designated by the latter; and when in attendance, each of the individuals composing a class is to be examined separately, and in the order of his name on the list of his class.

"Each Professor is to keep a list of those examined by him, and opposite to the name of each candidate is to note the result of his examination, with the view to vote in the affirmative or negative, as to his qualifications for the Degree.

"As the examination of each group of classes shall be completed, the Faculty will meet; the names of the candidates examined are to be read by the Dean; and as each name is called, the Professors are to consult their memoranda, and if no remarks be made, are to proceed to vote by ballot. If there should not be three negative votes, the candidate is to be considered as having passed, and is to be entitled to his Degree. Should three black balls be cast, the candidate is not to be considered as definitively rejected, but is to have the privilege of another examination before the whole Faculty in joint session.

"A candidate who may not have succeeded in the first ballot shall, upon declining an examination before the Faculty in joint session, have the privilege of withdrawing his Thesis, without being considered as rejected.

"If, upon the name of a candidate being called out, one or more of the Faculty have remarks to make in relation to his qualifications, they are to be heard before the vote is taken.

"The candidates in classes being thus disposed of, the Faculty will then proceed with those who may prefer an examination before the Faculty in joint session, and afterwards with those who, having received three negative votes, may still choose to avail themselves of the opportunity of a final examination offered by the Faculty.

"Formal notice of a successful examination will be delivered upon the fees of graduation being paid, after which the candidate will insert his own name with the title of his Essay, upon the Register of Graduates. No diploma will be made out, or passed candidate reported to the Board of Trustees, except from an entry upon the Register.

"If a Thesis be found remarkable for any good quality, the fact is to be reported by the Professor having charge of the Thesis, to the Faculty at their meeting, who may take upon it such action as they may deem advisable."—*Extract from the Report to the Alumni of the School*, 1845.

College of Physicians and Surgeons of the City of New York.—"*Graduation.*—Candidates for the Degree of Doctor of Medicine must have attended two full Courses of Lectures, the last in this College; they must also have studied Medicine three years under the direction of a regular physician, and have attained the age of twenty-one. Each candidate is required to write a Thesis on some subject connected with the Science of Medicine, and to deposit it with the Secretary of the Faculty. Previous to his examination, full and formal certificates of time and age must be furnished.

"The examination of candidates takes place semi-annually. That for graduation in March, on or before the first of March; and that for graduation in the fall, on the second Tuesday in September."—*Extracted from Catalogue of* 1845-46.

There are six Professors attached to this school, besides the President; the subjects taught are the same as at the University of Pennsylvania; the Lectures commence on the 1st November, and are continued until 1st March. There are likewise fall and spring courses of lectures, to which students are admitted free of charge.

Medical Department of the University of New York.—"*VI. Regulations for the Terms of Lectures, &c. Requisites for Graduation.* The lectures commence on the last Monday of October, and are continued until the last day of February following.

"The examination for degrees will commence about the 1st of March, and will be continued daily, until all the candidates shall have been examined.

"The following are the requisitions for the Diploma:

"1st. The Candidate must be 21 years of age.

"2d. He must have attended two Courses of Medical Lectures; one of which must have been delivered in the Medical Department of the University of New York.

"3d. The Candidate must have studied Medicine for three years (the terms of attending Lectures being included in these), under the direction of a respectable Medical Practitioner.

"4th. He must write a Medical Thesis, either in the English, Latin, or French language.

"Two Commencements take place annually in the University, at either of which Candidates who have complied with the above requisitions may graduate.

"The first takes place early in the month of March, and the other about the middle of the month of July. The great body of the Candidates will, no doubt, graduate at the Spring Commencement; but those who wish to postpone it will have the opportunity of coming forward in July.

"The examination for Degrees is conducted in private by the Professors individually."—*Extract from Annual Announcement of Lectures, &c.*, 1844-5.

There are six Professors attached to this school; subjects taught, same as in the two above-mentioned institutions.

JEFFERSON MEDICAL COLLEGE, PHILADELPHIA.—"*Regulations, &c.*—The regular courses of lectures commence on the first of November, and end on the last day of February.

"During the month of October, the anatomical rooms are open, and the Professor of Anatomy and the Demonstrator give their personal attendance thereto. Clinical instruction on Medicine and Surgery is likewise given at the Dispensary of the College.

"The examination of candidates for graduation commences on the first of March.

"The candidate must be of good moral character, and at least twenty-one years of age.

"He must have attended two full courses of lectures in some respectable Medical School, one of which, at the least, shall have been in this College, and must exhibit his tickets, or other adequate evidence thereof, to the Dean.

"He must have studied medicine for not less than three years, and have attended at least one course of clinical instruction in an Institution approved by the Faculty.

"He must present to the Dean of the Faculty a thesis of his own composition, correctly written, and in his own handwriting, on some medical subject, and exhibit to the Faculty, at his examination, satisfactory evidence of his professional attainments.

"If, after examination for a degree, the candidate, on ballot, shall be found to have received three negative votes, he shall be entitled to a fresh examination. Should he decline this, he may withdraw his thesis, and shall not be considered as rejected.

"The degree will not be conferred upon any candidate who absents himself from the public commencement, except by special permission of the Faculty."—*Extract from Catalogue of Jefferson Medical College*, 1845.

This College has seven Professors, and the subjects taught by them are the same as at the University of Pennsylvania.

II. GREAT BRITAIN.

[The following regulations are extracted from the last circular of the Edinburgh University, and from the "Student's Guide," published in Edinburgh and London.]

UNIVERSITY OF EDINBURGH.—"*Statutes of the University of Edinburgh relative to the Degree of M.D.*—Sect. I. No one shall be admitted to the examinations for the degree of doctor of medicine who has not been engaged in medical study for four years, during at least six months of each, either in the University of Edinburgh, or in some other University where the degree of M.D. is given; unless, in addition to three Anni Medici in an University, he has attended, during at least six winter months, the medical or surgical practice of a general hospital, which accommodates at least eighty patients, and during the same period, a course of practical anatomy; in which case three years of University study will be admitted.

"Sect. II. No one shall be admitted to the examinations for the degree of Doctor who has not given sufficient evidence,—

"1. That he has studied, once at least, each of the following departments of medical science, under professors of medicine in this or in some other university, as already defined, viz.:—Anatomy; chemistry; materia medica and pharmacy; institutes of medicine; practice of medicine; surgery; midwifery, and the diseases peculiar to women and children; general pathology; practical anatomy (unless it has been attended in the year of extra-academical study allowed by Sect. I.)—during courses of six months. Clinical medicine, that is, the treatment of patients in a public hospital, under a professor of medicine, by whom lectures on the cases are given—during a course of six months, or two courses of three months. Clinical surgery; medical jurisprudence; botany; natural history, including zoology—during a course of at least three months.

"2. That in each year of his academical studies in medicine, he has attended at least two of the six months' courses of lectures above specified, or one of these and two of the three months' courses.

"3. That, besides the course of clinical medicine already prescribed, he has attended, for at least six months of another year, the medical or surgical practice of a general hospital, either at Edinburgh or elsewhere, which accommodates not fewer than eighty patients.

"4. That he has attended for at least six months, by apprenticeship or otherwise, the art of compounding and dispensing drugs at the laboratory of a hospital, dispensary, member of a surgical college or faculty, licentiate of the London or Dublin Society of Apothecaries, or a professional chemist and druggist.

"5. That he has attended for at least six months, by apprenticeship or otherwise, the out-practice of a hospital, or the practice of a dispensary, or that of a physician, surgeon, or member of the London or Dublin Society of Apothecaries.

"Sect. III. No one shall obtain the degree of doctor who has not studied, in the manner already prescribed, for at least one year previous to his graduation in the University of Edinburgh.

"Sect. IV. Every candidate for the degree in medicine must deliver, before the 24th of March of the year in which he proposes to graduate, to the dean of the faculty of medicine,—

"*First.* A declaration, in his own hand-writing, that he is twenty-one years of age, or will be so before the day of graduation; and that he will not be then under articles of apprenticeship to any surgeon or other master.

"*Secondly.* A statement of his studies, as well in literature and philosophy as in medicine, accompanied with proper certificates.

"*Thirdly.* A medical dissertation composed by himself, in Latin or English; to be perused by a professor, and subject to his approval.

"Sect. V. Before a candidate be examined in medicine, the medical faculty shall ascertain, by examination, that he possesses a competent knowledge of the Latin language.

"Sect. VI. If the faculty be satisfied on this point, they shall proceed to examine him, either *vivâ voce*, or in writing; *first*, on anatomy, chemistry, botany, institutes of medicine, and *natural history* bearing chiefly on zoology; and, *secondly*, on materia medica, pathology, practice of medicine, surgery, midwifery, and medical jurisprudence.

"Sect. VII. Students who profess themselves ready to submit to an examination on the first division of these subjects, at the end of the third year of their studies, shall be admitted to it at that time.

"Sect. VIII. If any one, at these private examinations, be found unqualified for the degree, he must study for another year two of the subjects prescribed in Sect. II., under professors of medicine, in this or in some other university, as above defined, before he can be admitted to another examination.

"Sect. IX. Should he be approved of, he will be allowed, but not required, to print his thesis; and if printed, forty copies of it must be delivered before the 25th day of July to the Dean of the medical faculty.

"Sect. X. If the candidate have satisfied the medical faculty, the Dean shall lay the proceedings before the Senatus Academicus, by whose authority the candidate shall be summoned, on the 31st of July, to defend his thesis; and, finally, if the Senate think fit, he shall be admitted, on the first lawful day of August, to the degree of doctor.

"Sect. XI. The Senatus Academicus, on the day here appointed, shall assemble at ten o'clock, A.M., for the purpose of conferring the degree; and no candidate, unless a sufficient reason be assigned, shall absent himself, on pain of being refused his degree for that year."

ROYAL COLLEGE OF SURGEONS, LONDON.—"I. Candidates will be required to bring proof: 1. Of being twenty-two years of age. 2. Of having been engaged six years in the acquirement of professional knowledge. 3. Of having studied Anatomy and Physiology, by attendance on lectures and demonstrations, and by dissections, during two anatomical seasons. 4. Of having attended at least two courses of lectures on Surgery, delivered in two distinct periods or seasons, each course to comprise not less than sixty lectures. 5. Of having attended lectures on the Practice of Physic, on Chemistry, and on Midwifery, during six months; and on Botany and Materia Medica during three months. 6. Of having attended during twelve months the Surgical Practice of a recognized hospital in London, Dublin, Edinburgh, Glasgow, or Aberdeen; or for six months in any one such hospital, and twelve months in any recognized provincial hospital.

"II. Members and Licentiates in Surgery of any legally constituted College of Surgeons in the United Kingdom, and Graduates in Surgery of any University requiring residence to obtain degrees, will be admitted for examination, on producing their diploma, license, or degree, together with proofs of being twenty-two years of age, and of having been occupied five years in the acquirement of professional knowledge.

"N.B. Certificates will not be recognized from any hospital, unless the Surgeons thereto, or a majority of them, be members of one of the legally constituted Colleges of Surgeons in the United Kingdom; nor from any School of Anatomy, Physiology, Surgery, or Midwifery, unless the respective teachers be members of some legally constituted College of Physicians or Surgeons in the United Kingdom.

"Certificates will not be received on more than two branches of science from one and the same lecturer, but Anatomy and Physiology, Demonstrations and Dissections, Materia Medica and Botany, will be respectively considered as one branch of science.

"In the certificates of attendance on Hospital Practice, and on Lectures, the dates of commencement and termination are to be inserted in words at full length.

"All the required certificates are to be delivered at the College ten days before the candidates can be admitted to examination."

III.—IRELAND.

University of Dublin.—*For the Bachelor's Degree.*—"The candidate must present to the Registrar of Trinity College certificates of having attended lectures on the following branches, viz., Anatomy, Surgery, Chemistry, Botany, Institutes of Medicine, Practice of Medicine, Materia Medica, and two courses of Clinical Lectures, given in immediate succession. These certificates must all be taken from the Professors in Trinity College, and the King's Professors, appointed by the Act for establishing a complete School of Physic in Ireland, unless some three certificates for the same courses in the University of Edinburgh be produced, which are admitted by the Board: but the certificates from any other university or college, or from any private school, are not received as qualifications.

"The Statutes, after stating generally, that three years must elapse after taking the degree of A.B. before that of M.D. can be obtained, provide that it may be taken in three different ways:—

"1. If any one commence his *medical* studies immediately on his entrance or matriculation, then he may seek the degree of M.B. after twenty-four terms—(*that is, six years*).

"2. If he begins after taking the degree of A.B., then after three years.

"3. If he begins after taking the degree of A.M., then after two years.

"On the production of the above certificates by the Registrar, the Board grant permission to the candidate to be examined by the four Medical Professors of the University, viz., the Regius Professor of Physic, the Professor of Anatomy, the Professor of Chemistry, and the Professor of Botany, provided the proper time, according to the statutes, has elapsed from the period of his graduating as a Bachelor of Arts, which examination is conducted in the Latin language. If the candidate be found qualified, the Professors individually certify the same, on which he is permitted to perform the exercises mentioned in the statutes, and at the next half-yearly commencement, the degree of Bachelor of Medicine is conferred on him by the Vice-Chancellor of the University.

"If the degree of Master of Arts be taken previously to that of Bachelor of Medicine, the degree of M.B. can be obtained in either the University of Oxford or Cambridge, which qualifies the person for being elected a Fellow of the College of Physicians of London, to whom several privileges and advantages belong.

"*Doctor of Medicine.*—The degree of M.D. may be taken in three different ways, as was stated of the degree of M.B.:—

"1. Those who obtain the degree of M.B. after twenty-four terms, or six years, from matriculation, must complete six other years before they can obtain the degree of M.D.

"2. Those who have previously taken the degree of A.B. may obtain M.D. in five years after taking the degree of M.B.

"3. Those who have previously taken the degree of A.M may obtain M.D. in four years after taking the degree of M.B.

"The candidate for the degree of Doctor of Medicine is required to dispute in the Hall, and to write and print a thesis.

"The degrees of Bachelor and Doctor of Medicine from Trinity College, rank with the degrees of M.B. and M.D. of Oxford and Cambridge."

IV.—FRANCE.

Paris School of Medicine.—There are eighteen distinct chairs established in the Paris School of Medicine, and twenty-six regularly appointed Professors, who are aided in the discharge of their duties by a number of Agrégés or assistant Professors.

" *Courses.*—The instruction is at present embraced in eighteen courses of lectures, which are divided into a winter and summer session. The former commences with the month of November and terminates in March; the latter begins on the first Monday in April, and is continued until the end of July; August, September and October are a vacation. The winter course comprises lectures on Anatomy, Medical Chemistry, Legal Medicine, Surgical Pathology, Medical Pathology, General Pathology and Therapeutics, Clinical Surgery, Clinical Medicine, and Clinical Midwifery.

" The summer session embraces courses on Medical Physics, Hygiene, Medical Natural History, Accouchements, Physiology, Surgical Pathology, Medical Pathology, Pharmacy and Organic Chemistry, Therapeutics, Pathological Anatomy, Operative Surgery, Clinical Surgery, Clinical Medicine, and Clinical Midwifery.

" The clinical lectures are delivered at the hospitals during five mornings of the week, and usually commence about nine o'clock, or immediately after the visit to the wards. All the other lectures are delivered at the School of Medicine, and between the hours of ten and four o'clock.

" *Inscriptions and Qualifications required from Students.*—An inscription means the registering one's name in a register kept for the purpose. This has to be repeated every three months, and on each occasion the student will receive a card certifying to the fact of his having inscribed. When a young man, whose intention it is to study medicine, presents himself at the bureau of the faculty to take out his first inscription (which, as well as in the case of all subsequent ones, must be done in person), he is required to deposit with the secretary the following documents:

" 1st. His certificate of birth.

" 2d. His parent's or guardian's consent for him to study medicine, should he be a minor.

" 3d. A certificate of his morality.

" 4th. His diploma of Bachelor of Letters.*

" A diploma of Bachelor of Sciences† is required after the fourth inscription and prior to the first examination.

" If the father or guardian of a student does not reside in Paris, he must introduce some known and respectable citizen, who is willing to become responsible for his good conduct.

" The full term of study comprises four years, or sixteen quarterly terms.

" *Examinations.*—Every pupil, before he can gain a diploma from the Paris faculty of medicine, must submit to five examinations, one of which takes place at the end of his first year of study, and the rest at stated intervals after.

" The first examination is on the subject of Chemistry, Physics, and Medical Natural History.

" The second embraces Anatomy and Physiology.

" The third, Internal and External Pathology.

" The fourth, Hygiene, Legal Medicine, Pharmacy, Materia Medica, and Therapeutics.

" The fifth and last is a practical one, and is conducted at the hospital of the faculty (*hôpital des cliniques*); it consists in selecting two patients from the wards of the hospital, and examining and prescribing for them in the presence of a committee of three professors.

" The first four examinations are conducted by two professors and one assistant professor, and three candidates are examined at the same time; for the fifth examination only two candidates at a time are admitted.

" Physicians and surgeons, graduates of foreign schools, who may be desirous of obtaining a diploma from the Paris faculty, must submit to all the examinations required from students; they must likewise exhibit their diplomas of Bachelor of Letters and Bachelor of Sciences If they can show, by proper certificates, that they have studied in a foreign university during two years longer than is required in the Paris faculty, they are entitled to an immediate examination, on the payment of all charges exacted for the five separately. If they cannot produce proof of having been six years engaged in study, then such time as they have studied will be allowed them, in the proportion of two-thirds; for instance, proof of three years study abroad is admitted as equivalent to two years in the Paris school, and hence attendance on lectures will be required for two years only, and so on. The King has the privilege of granting unconditional licenses to foreigners to practise in France.

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* In lieu of the diploma of Bachelor of Letters, the student may submit to an examination, of one hour's duration, on the French, Greek, and Latin languages, general history, and geography.

† For the degree of Bachelor of Sciences, the examination is made on Mathematics, Chemistry, Zoology, Botany, Physics, and Mineralogy.

" The examinations are conducted in French, and by the professors themselves, or by the assistant professors (agrégés). A student is always notified, four days beforehand, of the time appointed for an examination; and if he does not present himself at the hour indicated, he is not allowed to apply for another examination until after the expiration of three months, which are thus lost to him.

" *Theses.*—By an order of the Council Royal of Public Instruction (1838), the theses of all candidates for medical degrees are to consist of written answers to four questions, which are to be drawn for by lot. The questions embrace the subjects of the physical sciences, anatomy and physiology, surgery and medicine. A number of questions on each of these branches are proposed by the Council Royal, and those relating to the different subjects are deposited in separate urns, from each of which the candidate draws one in the presence of the Dean of the faculty, and after having undergone his second examination. The thesis is to be deposited in the hands of the Dean when the student offers himself for his final examination, and it is referred to some member of the faculty to examine, prior to its being supported in public by the author.

" All theses must be printed at the expense of the student."—*Hospitals and Surgeons of Paris.*

Notwithstanding the severe restrictions that are now imposed in France, the national medical congress which lately met at Paris, has recommended to the government, that additional requirements shall be made of candidates for the M.D. degree, and that the courses of instruction shall be still further enlarged.

Art. II.—*An Account of the African Fever as it prevailed on board the U.S. Ship Preble, during her late Cruise, with an Abstract of forty-three Cases.* By S. Wilson Kellogg, M.D., U.S.N., Surgeon of the Vessel, communicated in a letter to the Editor.

Dr. Lee—Dear Sir: The African fever made its appearance on board the U. S. Sloop of War Preble, on the 19th of Nov., 1844, while at anchor in the river Jeba, west coast of Africa.

The ship was ordered on the 26th of October to proceed from Porto Praya to Bissao, which is a small settlement on the northern bank of the river Jeba, about 51 miles from the ocean, belonging to the Portuguese government. The town is surrounded by a low, marshy country, filled with rice and mangrove swamps. In front of the town is a large mud bank which at the ebb-tide is exposed to the rays of an almost vertical sun, sending forth a peculiar but very disagreeable effluvia, particularly when disturbed by any cause. The tide in the river is very rapid, and the water exceedingly turbid. During the day there was usually a fine refreshing sea breeze up the river, but at night the wind hauled to the northward, blowing directly off the land, laden with miasm and offensive exhalations from the swampy grounds. The weather was extremely hot, but damp, and the rainy season had just ended. During the period of our stay here, from Nov. 5th to Nov. 23d, there were occasional heavy rains, with violent gusts of wind, called there "*tornados*." This place is considered to be one of the most unhealthy places on the African coast, and the fever, usually, is extremely malignant and fatal. The ship was anchored about a quarter of a mile from the shore, and the crew were allowed to sleep on the spar-deck. They were also much exposed in painting the ship, and in boat expeditions to assist the garrison who were at war with the natives. The men were turned out of their hammocks at night, and sent off in the boats, and kept exposed for hours to the damp night air in these expeditions. It was, therefore, not at all wonderful, that exposed as the crew were to the sources of this disease, it should have made its appearance in a malignant and severe form.

The first case occurred on the night of the 18th of Nov. In the morning I reported the fact to the Commander of the ship, and recommended an immediate removal. The fever gradually and steadily increasing, the ship was gotten under weigh on the 23d for Porto Praya, where we arrived on the 29th, and sailed the next day for Porto Grande in the Island of St. Vincent (Cape de Vèrde Islands), where we came to anchor on the 3d of December. The first death took place on the afternoon of this day, and the disease appeared now to assume a more malignant and unmanageable form.

The governor of this island having granted permission, houses were hired, and twenty-two of the worst cases were immediately landed. Three days after, the flag ship of the squadron came in, and the Commander caused additional houses to be hired and tents to be erected, so as to accommodate all the sick, who were sent on shore, with the exception of the Commander and 1st Lieutenant, who were too ill to be moved, and were more comfortably accommodated on board than they could have been on shore.

The attack of the fever was usually in the night, in most cases preceded by premonitory symptoms, such as nausea, loss of appetite, slight pains in the head, back and extremities, weariness, debility, lowness of spirits, &c., &c. In some cases, however, the patients said they felt perfectly well up to the time of the attack.

At the commencement of the fever there was, generally, a sensation of chilliness, in most cases slight, but occasionally severe, almost amounting to rigors. This chilliness was quickly followed by a hot burning feeling, severe pain in the head, back and extremities (chiefly in the ancle and knee-joints, and calves of the legs). In the early stage, the pain in the head was rarely severe, but almost every patient complained bitterly of "sharp, darting pain" in the lumbar region. In this stage the features were swollen, flushed, and expressive of pain. The eyes uniformly presented a dull, heavy appearance, were much injected and watery. A painful sensation in the eye-ball was frequently complained of,—in many cases the adnata were quite yellow, but this was generally in the latter stages,—the pupils were always much dilated—sometimes the one much more so than the other. This symptom was always noticed even in the mildest cases, and often continued during convalescence. The condition of the skin was various—in some cases, hot and moist—in others, cool and bathed in profuse sweat—in some few instances, however, it was hot and dry. The tongue was pale and tumid, showing the marks of the teeth on its edges—very moist and slightly tremulous—at the back part it was usually covered more or less with a dirty whitish or yellowish slime. The pulse was, in some cases, full, soft, and ranging from 80 to 110, but very quick—in others, small, feeble, rapid and quick —from 100 to 140. The different secretions were more or less disordered. During the first two days there was a slight but distinct remission in the morning; but on the 3d day there was usually a perfect remission, almost amounting to a complete apyrexia. The liberal use of quinine at this period often checked the disease completely, but it more often failed, and the fever returned with redoubled violence.

The pains in the head, back and limbs, now became very severe—the face was flushed, the features assuming a wild, bewildered expression—the eyes very much suffused—pupils extremely dilated—the tongue more tumid, tremulous, and loaded with a thick fur of a dirty white or yellowish color, frequently changing to a dark brown, it was seldom dry or pointed, but usually very moist—the skin hot and bathed in sweat, or in some few cases hot and dry—thirst intense and urgent—breath and exhalations from the patient's body extremely offensive—respiration hurried and anxious, accompanied with deep sighing—pulse small, quick, feeble, varying from 100 to 140—great restlessness—the patients constantly tossing about, and sometimes throwing themselves out of their cots on to the floor. The intellect now became more or less affected; if neither delirium nor coma ensued, the mind was dull and confused—the temper irritable and fretful. There was often delirium or coma; or alternations of the two. The delirium was rarely of a fierce or troublesome character, but of the low muttering kind. If comatose, the patient would easily be roused, answered questions readily and correctly, but immediately after relapsed into his former drowsy semi-stupid state. In some cases the stomach was very irritable, instantly rejecting everything swallowed, or troublesome diarrhœa ensued—the discharges being thin and acrid, excoriating the anus and adjacent parts. The fever now showed but little tendency to remit, and had evidently assumed a continued type. If the patient survived for three or four days, the stage of exhaustion came on. The face lost its former flushed and bloated appearance, and became sunken and yellowish—the eyes dull and glassy—the pupils either extremely dilated or much contracted—the skin yellow, cold and clammy—the tongue lost its fur, and became clear, and of a fiery red color—sometimes dry and rough, but usually smooth and moist—pulse generally small, rapid and thready, but occasionally very frequent, quick and soft—communicating to the finger, the sensation of the artery being filled with air instead of a liquid. In some cases the patients became very delirious and noisy, insisting on getting out of their cots, and requiring constant watching to prevent them from getting up, and wandering about the apartment. One or more were severely injured by falling while attempting to walk without assistance. In other cases the patients were inclined to stupor, being in a listless, half drowsy state, and when roused said they "had no pain and felt perfectly well." This was a fatal symptom, as I do not recollect a single instance of recovery when it was present. During this stage an exhausting diarrhœa frequently ensued, with a tympanitic distension of the abdomen—the stools were frequent, liquid, small in quantity, dark colored, extremely offensive, and often passed involuntarily. Many of the patients suffered much from epistaxis, which was, occasionally, difficult to stop, and always proved very injurious. There was in some cases hemorrhage from the gums and mucous membrane of the mouth, and in one instance, large quantities of blood were passed *per anum*, producing fatal exhaustion. Towards the close of the disease there were often singultus; subsultus tendinum; extreme restlessness and jactitation; involuntary discharge of urine and fæces; generally terminating in profound coma, or convulsions.

This fever was characterized by extreme debility; in most of the cases syncope ensued whenever the erect position was attempted. The mind, from the commencement of the disease, was very much depressed,—forebodings of fatal consequences, and an irritable and fretful temper, were noticed in nearly every case. Many of the patients gave themselves up as lost at the very commencement; and one was so impressed with the certainty of a speedy approach of death, that he obstinately refused to take any medicine. In a few instances petechiæ were observed.

Post-mortem Appearances.—Surface of the body, in most cases, very yellow; in the head, considerable engorgement of the vessels of the membranes; serous effusion between the arachnoid and pia mater, chiefly at the base of the cranium; the ventricles usually contained an unnatural quantity of fluid; the substance of the brain vascular; it was of the natural firmness, except in one instance, where it was exceedingly soft.

Thorax.—Lungs healthy; the heart, like all the other muscles, was softer than natural; and in some cases could be easily torn.

Abdomen.—Liver rather larger than natural, very dark colored, and softer than usual; gall-bladder distended with a healthy looking bile; stomach was slightly congested in spots, especially about the cardiac orifice, where the mucous coat was, in several cases, much softened; there was a considerable quantity of a thick gelatinous matter, of a dark brown or chocolate color, adhering to the inner coat of the stomach; small intestines were considerably congested, particularly the ileum, near the caput coli; the inner coat resembled that of the stomach; no ulceration nor other morbid alteration of the small glands of the intestinal canal were discovered, although carefully sought for; the large intestines appeared to be healthy.

The spleen, in every case examined, was much enlarged, and altered in structure; color very dark, almost black, and extremely soft, so much so, that slight pressure between the fingers was sufficient to reduce it to a complete pulp; the other organs appeared to be natural. The blood was, uniformly, very fluid and thin; resembling weak claret and water, both in color and consistency; in no instance were any coagula found in any part of the body.

In the treatment of this fever, I did not venture to use the lancet, so highly recommended by writers, in the fevers of hot climates, as the symptoms from the very commencement appeared to forbid abstraction of blood by general bloodletting; and I have since been informed that it has been universally condemned by those who have had any experience in the treatment of this form of fever. I found that epistaxis, when it happened, as it did in several cases very early in the disease, was uniformly injurious, by increasing the debility so much to be dreaded in the latter stages. Local bloodletting was, however, very beneficial in relieving congestions of the viscera, and cups were applied to the temples, back of the neck, epigastrium, and over the region of the liver and spleen, with excellent effect. Blisters were freely employed, especially during the latter stages, when it was deemed prudent not to use cups, and were often of the greatest service.

Cathartic medicines to evacuate thoroughly the alimentary canal were necessary, as the morbid and irritating nature of its contents evidently aggravated the disease. Those of a mild nature, to merely empty the intestinal tube, and to gently stimulate the biliary organs, such as the mass hydr. or calomel in combination with rhei, or ext. col. c., were usually employed in the first stage only; as later in the disease there was always a disposition to irritability of the stomach and bowels. If the bowels required moving after the first few days, the mildest laxatives only were resorted to; and oftentimes the greatest caution was necessary in the employment of these; mild and unirritating enemata were often beneficial, and could be administered without any risk. After the bowels were freely evacuated, the use of mercury in small and frequently repeated doses, so as to bring the system under its influence, was commenced; having found, as soon as the gums showed the effect of the remedy, that the disease assumed a favorable aspect (only one case having proved fatal after the mouth became touched). As soon as the breath showed the peculiar fetor, and the gums began to be tender, the medicine was immediately suspended; but, notwithstanding, in several instances profuse and troublesome salivation ensued. To quiet the irritability of the stomach and alleviate the distressing thirst, effervescing draughts were given; they were exceedingly grateful to the patients, and relieved more effectually the terrible thirst, so distressing to the poor fellows, than anything else that could be obtained. When diarrhœa came on, mild astringents were employed. Evaporating lotions to the head, and sinapisms to the feet, were useful in relieving the headaches.

As soon as a remission was evident, quinine was largely and freely employed, either in solution, or in combination with blue mass and rhei; I preferred the latter form, as the patients took it more willingly, and it seldom offended the stomach. In consequence of the small quantity of quinine in the squadron, and the utter impossibility of procuring it in the island, I was compelled to resort to a variety of stimulants and bitters, but nothing could supply the place of quinine; bark, and indeed all bitter infusions and tinctures, caused so much nausea and irritability of stomach, that I was obliged to refrain from using them.

In the latter or sinking stage, carb. ammon., either alone or in combination with camphor, wine, brandy, sinapisms to the feet and ancles, blisters to the region of the heart, epigastrium, or inside of the thighs, were the chief remedies resorted to, and in several apparently desperate cases, with complete and most gratifying success. Want of sleep was a very troublesome and annoying symptom during the last stage, and likewise in convalescence; to relieve this, opium and morphia in various forms were prescribed, but without much service; causing headache, thirst, loss of appetite, and costive state of the bowels. I found the ext. and tr. hyos. to agree better, producing comfortable and refreshing sleep, without being followed by the above mentioned unpleasant consequences.

Convalescence was remarkably slow and tedious, the patients gaining strength very slowly; months elapsed before they could be considered as fairly free from the effects of the fever. Relapses were also very frequent, being produced by the slightest causes, such as exposure to the sun, error in diet, excitement of mind, fatigue, wet clothing, costive bowels, &c. These relapses were usually mild; many of them assuming an intermittent form; either the quotidian, tertian, or a complication of the latter. These were uncommonly obstinate, although the usual remedies were freely and largely administered. A voyage to the north, and a run on shore at the Canary Islands, appeared to be of more benefit than medicines.

Those who have resided on the African coast, and have had an opportunity of becoming acquainted with its diseases, describe three different forms of fever prevalent among foreigners, viz.:

1st. The intermittent, in all its different varieties; it is usually a sequel of the other fevers, or attacking them who are acclimated. It is exceedingly obstinate and difficult to cure,—in fact, the only permanent cure is a departure from the coast to some healthier region.

The second form may be deemed the climatorial, generally prevailing among the crews of vessels cruising or trading along the coast. This partakes more of the inflammatory fever than the third species, and will occasionally bear the loss of blood with advantage. When properly treated it yields readily, and is seldom fatal.

The third is one of the worst, if not the most fatal of all fevers, when in a congested and malignant form, and is usually denominated, *par excellence*, the "African Fever." By many it is considered identical with the worst variety of the yellow fever of the West Indies. On board of the Preble it appeared in many of the symptoms to be similar; there was however in no case anything like black vomit. In Houston's case, as well as in others, the skin was as yellow as in the West India fever; the red watery eye; the pale, tumid, tremulous tongue, and the hemorrhage from the gums, bowels, &c.; all are symptoms of the real yellow fever. I have been informed that often the black vomit is present, as was the fact on board the English Steamer Eclair. I shall not at present discuss the identity of this with the yellow fever of the West Indies. This form of fever is never seen on board of ships, unless they enter the rivers, or some of the officers or crew spend a night or two on shore. Few, it is said, escape an attack who sleep on shore even for one night only. Although it prevails all along the whole coast, it is much more violent and fatal in towns situated on the banks of the rivers. It is usually of very short duration, terminating in from three to ten days, although occasionally it is slower, several cases in the present fever having lasted over twenty days; but this was owing to the fact of the ship's not remaining a sufficiently long time in the pestilential atmosphere of the African coast, to induce the extremely malignant form it frequently assumes.

The number of the officers and crew of the Preble, at the time of her leaving Porto Praya for Bissao, was about 170; nearly 100 of them were attacked by the fever (in this number the relapses, and the cases of intermittent fever, are not counted). The number of deaths was 14; being a proportion of about one in every seven.*

During the remainder of the cruise those who had suffered from the fever, were very subject to diseases of the stomach and bowels; intermittent fevers; debility, &c.

The colored portion of the crew were even more liable to attacks of this fever than the white, two only having escaped out of the eleven on board; no case proved fatal among these, although in nearly every instance the attack was severe. Not a single boy escaped, they having it, with one exception, in a very malignant form. Of the deaths, five were of the age of 21, or under. I do not, at this time, recollect the number of boys on board, but I think the number was less than twenty.

New York, Dec. 18*th*, 1845.

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* Two deaths occurred besides the number mentioned; one by a fall from his hammock, about the fourth day of his illness, by which his scull was fractured; the other perished by an attack of apoplexy, three weeks after convalescence, undoubtedly caused by hard drinking.

ABSTRACT OF CASES.

CASE I.—*Nov.* 19*th.* J. C., Corporal Marines, was seized last night with a smart chill, severe pain in the head, loins and extremities; pulse frequent and feeble; skin hot and bathed with sweat; tongue furred and moist; great thirst, bowels constipated. ℞. Calomel. grs. x: ext. colocynth c. gr. vj., m. ft. pil. ij. s.

20*th.* Rather better, less pain; skin moist and cooler; great restlessness; thirst very great; tongue moist and covered with thick fur of a yellowish cast; face pale and shrunken; eyes red and watery. Cathartic produced one tolerably free evacuation, dark and offensive. ℞. Mass. hydr. gr. ij.; pulv. rhei. gr. ij., pulv. ipecac., gr. j., m. ft. pil. qq. quart. hor. sumend. Solution of potass bitart. for drink.

21*st.* Passed a very restless night; had high fever; complains of severe pains in the gastrocnemii muscles, and also in the head and lumbar region. Pulse 96, quick and feeble; great depression of mind; tongue red at the tip and edges, and covered with white fur in the centre, moist; skin hot and covered with a clammy sweat; strength much diminished; bowels have been freely opened. Continue pills. ℞. Ammon. citrat. ℥ss. qq. 2da hora. Same drink.

22*d.* Better; has an intermission of fever; skin natural; tongue nearly clean; pulse 84 and feeble; ordered with the pills quin. sulph. gr. j. Arrow-root diet.

23*d.* Improving; no pain; tongue clean; skin natural; pulse very feeble and frequent; great debility. Allow weak port wine and water. ℞. Mist. quin. sulph. ℥ss. qq. 2da hora. Arrow-root.

24*th.* Improving; continue treatment.

26*th.* Convalescent.

CASE II.—*Nov.* 20*th.* T. F. was seized last night with chills, pain in the head and back. This morning complains of severe pain in head and loins; great restlessness; hot skin; slightly moist; tongue covered with a yellowish fur, and moist; breath offensive; eyes red and watery; pulse quick and feeble; complains of great debility; disinclination to move; bowels constipated. ℞. Hyd. prot. chl. gr. x., ext. col. comp. gr. v., M.

21*st.* No better; passed a most uncomfortable night; bowels moved by cathartic; stools dark green and offensive; strength failing fast; pulse 100, tolerably full but very compressible; thirst great; other symptoms as yesterday. ℞. Calomel. gr. ij., pulv. ipecac. gr. ss., M. ft. pulv. qq. 3 vel 4ta hora, sumd. sol. pot. Bitart. for drink.

8 *P.M.* Worse; has vomited several times; skin very hot and dry.

22*d.* Worse; had a very bad night, was extremely restless, with great heat of skin; complains very much of pain in the head and loins; tongue red at the edges; stomach very irritable; pulse rapid and feeble; skin hot and moist in spots; bowels free; stools dark and watery; applied mustard to epigastrium; cold applications to head. ℞. Sol. ammon. citrat. ℥j. a teaspoonful, qq. ½ hora.

23*d.* Last evening pulse became very feeble; skin cold and clammy; gave port wine and water freely, with excellent effect; the stomach became less irritable; had a tolerably free stool this morning; pulse 90 and fuller; tongue cleaning, showing a fiery red surface; skin feels softer and more natural. Continue port wine and water; mist. quinin. qq. 2da hora; allow a little thin arrow-root if he wishes.

24*th.* Was very comfortable yesterday; but at night complained much of pain in head and extremities, and became very restless; this morning, tongue cleaning and less red; skin moist and cool; pulse 94 and feeble; has had no movement of bowels. ℞. Mist. magnes. calc. et rhei ℥ss., qq. hora. Continue treatment.

25*th.* Better; took tr. hyoscyami gtt. lx. last night, which produced about four hours' refreshing sleep; bowels gently moved twice; tongue cleaning and less red; had two attacks of hemorrhage from the nose yesterday; pulse fuller and less frequent; skin natural and gently moist. Continue treatment.

26*th.* No material change since yesterday; took tr. hyoscyami gtt. lx. last evening; slept tolerably well; tongue nearly clean; pulse 84 and soft; skin natural; continue treatment. Arrow-root.

27*th.* Convalescent; continue quinine. Porter.

Case III.—*Nov.* 20*th.* J. E., Marine, was taken with chills, &c., last night on post: symptoms very similar to those of the case above mentioned. ℞. Calomel. gr. x., pulv. rhei gr. xviij.

21*st.* No change in symptoms; skin hotter and drier than in either of the above cases; cathartic has operated freely; same treatment prescribed as in the last case. 8 P.M. delirious; head very hot; applied cloths wet with cold water to it.

22*d.* Worse; free from delirium; less pain in head; is very restless; skin hot and dry; pulse 110, quick and feeble. ℞. Calomel., carb. ammon., aa., gr. ij. qq. 3ta hora.

23*d.* Slightly better; less heat of skin; no pain in the head; less restless; slept some; bowels free; continue treatment.

24*th.* Very restless last night; stomach irritable; gave pil. opii, gr. ij.; had some sleep this morning; is more comfortable this morning; effervescing draught.

25*th.* Better; applied emp. epis. to epigastrium last evening which has allayed the irritability of the stomach; tongue clean; pulse 84, less quick; skin natural; bowels free. ℞. Calomel., quin. sulph., aa., gr. ij., qq. 2da hora. Arrow-root.

26*th.* No pain in the head or back; complains of pain in epigastrium; pulse 100, small; skin moist; natural temperature; thirst urgent; bowels free; restless and peevish; omit pills. ℞. Calomel. gr. ij. every 2 hours: emp. epispast. to epigastrium.

27*th.* Better; less fever; complains much of the blister on the epigastrium, which has relieved pain; skin natural; tongue cleaner; continue treatment.

28*th.* Improving; no fever this morning; pulse fuller and slower; tongue cleaning; continue treatment. Sago.

29*th.* Convalescent; continue treatment. Arrow-root.

Case IV.—*Nov.* 21*st.* H. H., Landsman, was taken during the night with fever similar to the above mentioned cases. ℞. Calomel. gr. x. to be followed by magnes. sulph. ℥j.

22*d.* Better; complains of pain in the region of the liver; not tender on pressure. ℞. Calomel. gr. x., pulv. Doveri gr. viij., M.

23*d.* Feels more comfortable; complains of great thirst; skin warm and moist; pulse full, about 90. ℞. Mass. hyd., sulph. quin., aa., gr. ij., qq. 2da hora. Arrow-root.

24*th.* Improving; says he has no pain; bowels free; skin natural and moist; tongue cleaning; continue treatment.

25*th.* Better; has had free hemorrhage from the nose yesterday; continue treatment. Rice diet.

26*th.* Not as well; skin hotter and drier; more pain in the head; restless; great thirst; omit pills. ℞. Calomel. et potass. nitrat. gr. iv. qq. 2da hora; apply wet cloths to head.

8 P.M. Is very delirious; constantly getting out of his hammock; head very hot; apply cloths dipped in alcohol and water.

27*th.* Is sleeping very quietly; skin moist and temperature natural; continue treatment.

28*th.* Improving; pulse 90, full and soft; no pain; skin natural; tongue cleaning. ℞. Quin. sulph., pulv. rhei, aa., gr. ij. qq. 2da hora.

29*th.* Convalescent.

Case V.—*Nov.* 23*d.* J. M. S., Midshipman, æt. 20, admitted. Complains of pain in head and back; pulse frequent, and full; skin natural and moist; tongue thickly coated with a yellowish fur. Had no chill preceding. ℞. Calomel. gr. x., ext. colocynth. c. gr. vj., M. ss.

24*th.* Had a very high fever last evening; head very painful; restless; skin hot and dry; pulse full and frequent, 110; sponged skin with alcohol and water; applied cloths wet with the same to the head. ℞. Calomel. ʒss., nit. potass. ℈ j., tart. antim. gr. j., M. et div. in pulv. v. j. qq. 2da hora; applied sinapisms to feet; better this morning; skin moist and natural; continue treatment.

25*th.* Worse; very restless; slightly delirious through the night; headache violent; skin hot and dry; tongue moist, and covered with a thick whitish fur; pulse 120, quick and feeble; substituted pulv. ipecac. for the tart. ant. which nauseated.

This morning is inclined to coma; is roused with difficulty; answers incoherently; applied mustard to feet, emp. episp. to back of neck, and cups to temples; passed a stool in bed; continue powders.

8 P.M. No change for the better; eyes suffused, pupils contracted; face swollen and flushed; has a peculiar staring expression; makes no reply when spoken to; is very restless, constantly striving to get out of bed; has passed two stools involuntarily; takes neither drink nor medicine; applied blisters to ankles; pulse very rapid and feeble; skin dry and hot, especially about the head; keep cloths wet with alcohol and water constantly to the forehead.

26*th.* Slight improvement; answers questions, and can be aroused without difficulty; face less flushed; eyes more natural; skin dry, and but little warmer than usual; tongue cleaning about the tip; pulse 112, quick and feeble; stomach very irritable, rejects everything that is swallowed; blisters have not drawn; has passed a stool in the cot, color bright yellow; apply mustard to epigastrium; will take no medicine.

8 P.M. Has improved very much since morning; blisters have drawn freely; is perfectly rational; skin moist and of natural temperature; mustard has quieted stomach.

27*th.* Passed a comfortable night; slept soundly; is perfectly conscious; pain in the head very slight; tongue cleaning; skin natural; pulse 84, full and feeble; retains drink on his stomach; bowels open; stools healthy color; nothing ordered; lemonade is craved, allow it; a little thin arrow-root or sago.

28*th*. Improving; no pain; skin natural; tongue cleaning; pulse quick, soft and full (86); bowels free; craved food; little or no thirst; allow arrow-root or sugar.

29*th*. Not so well; eat some chicken soup without the knowledge of the medical officers; was delirious last night; tongue red, moist, and slightly coated with a white fur; skin natural, but rather dry; is somewhat fatuitous. ℞. Mass. hyd. gr. xij. ss.: effervescing draught.

30*th*. No material change; is more or less delirious; tongue as noted yesterday; skin rather hotter and drier than natural; says he is perfectly free from pain; answers questions very well; bowels free; continue treatment; apply emp. epis. to ankles.

Dec. 1*st*. Better; no delirium; tongue cleaning; pulse feeble (94); skin natural. ℞. Sol. sulph. quin. gr. ij. qq. 3ta hora; allow a little weak port wine and water.

2*d*. Quinine did not agree; omit it; was very delirious all night; stomach rejects everything; passes his stools in bed; apply emp. epis. to epigastrium; pulse frequent and fluttering; skin dry and harsh; tongue red, and moist, but not furred nor glazed; thin arrow-root with wine.

3*d*. Much worse; is evidently sinking; pulse very rapid and extremely feeble; very delirious; other symptoms as yesterday; brandy and water. ℞. Pulv. camph. gr. v., carb. ammon. gr. vj., M. qq. hora. At 4 P.M., died; not examined.

Case VI.—*Nov.* 24*th*. P. C., Seaman, has pain in head and loins; frequent small pulse and other symptoms of the prevalent fever. ℞. Calomel. gr. xij., pulv. jalapæ gr. xv., M. ss.

25*th*. As yesterday, excepting that he has less pain in the head and back. ℞. Calomel. et potass. nitrat. aa., gr. iij. qq. 2da hora sum.

26*th*. Had a remission of fever last evening, but this morning it has returned; skin very hot and dry; pulse rapid; headache severe; continue powders; sponge the skin with alcohol and water.

27*th*. Better; tongue cleaning; skin warm and moist; pulse 80, full and soft; no pain. ℞ Sulph. quin., pulv. rhei, aa., gr. ij. qq. 2da hora, during remission; arrow-root.

28*th*. Improving; tongue nearly clean; pulse 82, full and soft. Continue powders—sago or arrow-root.

29*th*. Continues to improve. Continue treatment.

30*th*. Not as well; stomach rather irritable; bowels loose; tongue covered with a white fur; red at the tip and edges; discontinue treatment. Apply emp. epispast. to epigastrium.

Dec. 1*st*. No change in symptoms. ℞. Quin. sulph., pulv. rhei, aa., gr. ij. if a remission occurs.

2*d*. Worse; had high febrile symptoms last evening, with low muttering delirium and propensity to get out of his cot; pulse extremely feeble and fluttering; this morning, skin cool and clammy; port wine and water; arrow-root, quinine.

3*d*. Continues to grow worse, is sinking; brandy and water.

4*th*. Slightly improved; pulse more perceptible; skin cool and clammy; tongue nearly clean; continue brandy and water.

5*th*. Pulse 80, very feeble; skin dry and husky; tongue has a little brownish fur at the back part; has no pain; is perfectly rational, countenance sunken; has some appetite; bowels regular, one stool; is exceedingly debilitated; allowed him some arrow-root with wine; slept well last night; continue brandy and water freely.

6*th.* Convalescent; beef tea; omit brandy, give wine and water.

Case VII.—*Nov.* 25*th.* M. F., Supernumerary, admitted; complains of pain in head, loins and extremities; skin hot and moist; tongue covered with a whitish slime; pulse 106, quick and small; bowels not constipated; great restlessness; thirst urgent. ℞. Hydrarg. biniod. gr. iij. morphiæ sulph. gr. ¼, quin. sulph. gr. vj., in pulv. no. iv. div.; one every three hours.

26*th.* No material change since yesterday; medicine prescribed yesterday did not agree; omit it. ℞. Calomel. et potassæ nitrat., aa., gr. iij. qq. 2da hora.

27*th.* Has a good deal of excitement; headache not very severe; complains chiefly of pain in the loins and lower extremities; skin very hot and dry; tongue furred and dry; pulse rapid and feeble; bowels not open. ℞. Mass. hydrarg. gr. ij., pulv. rhei gr. iij., pulv. ipecac. gr. j. M. ft. pil. qq. 2da hora s.

28*th.* Better; headache very slight; tongue beginning to clean; surface quite red; pulse fuller and slower; skin warm and moist; bowels open. Continue treatment.

30*th.* No material change; refuses to take medicine; tongue covered with a white fur, and red at the tip and edges. Continue treatment.

Dec. 1*st.* Much improved; has no fever. ℞ Quin. sulph., pulv. rhei, aa., gr. ij. qq. 2da hora s.

3*d.* Improving. Continue treatment.

4*th.* Has more febrile excitement; pulse quick, rapid, and feeble; tongue red, and furred in the centre; great thirst; is disposed to be comatose; bowels loose; stools dark, thin, and very offensive; blister to epigastrium. Continue efferves. draught.

5*th.* Symptoms as yesterday. Apply blister to the back of the neck; will not take any medicine.

6*th.* Worse; very restless and uneasy; skin dry and harsh, and quite yellow; pulse 120, and feeble; says he has no pain; bowels free; tongue moist, and covered with a thick yellowish fur; moans a good deal; will take no medicine. Allow wine and water; arrow-root if he will take it.

7*th.* No change; pulse frequent, 120, and very feeble; considerable heat of skin; will not take any medicine. Wine and water.

8*th.* No change. Continue wine and water.

9*th.* Gradually failing; pupils much dilated; comatose; skin cool, dry, and harsh; tongue covered with a dark brown fur, and red at tip and edges: pulse 130, quick and feeble. Apply blisters to ankles. Continue wine and water.

10*th.* Profound stupor; will take nothing. Mustard to feet.

11*th.* Died this morning at 1 o'clock.

Autopsy, *twelve hours after death.—Cranium.*—Dura mater natural; pia mater and arachnoid much injected, so that it presented a complete meshwork of minute vessels when detached from the convolutions. The substance of the brain was much engorged, presenting points or dots when cut into. The ventricles contained nearly an ounce of fluid. The choroid plexus much injected. The whole brain was of a natural consistence.

Thorax.—Lungs healthy in appearance; when cut into and pressed, gave out bloody serum in considerable quantity; considerable effusion in the pleura on both sides. The pericardium contained about six ounces of serum.

Abdomen.—Stomach contained about six ounces of bilious colored fluid; seven lumbricoides, measuring from four to six inches in length, were found in it. The mucous coat at the cardiac extremity very much injected; little or no softening of it at any point, but corrugated in the form of a network, and deeply tinged of a yellow color, much thickened throughout, and adhering with considerable tenacity to the muscular coat. Liver very much enlarged and softened, yielding easily to pressure. Gall-bladder very much distended, containing nearly two and a half ounces of intensely black bile. Spleen enlarged, dark colored and much softened. Small intestines—duodenum much injected, presenting numerous bloody points or dots, from one to three lines in diameter. Some lumbricoides were found in the ileum. Mucous membrane healthy.

The blood throughout appeared to be extremely tenuous, and no coagulation appeared to exist in any part that was examined. In the venæ cavæ and the right ventricles of the heart it resembled, in color and consistence, claret wine diluted with water.

Case VIII.—*Nov.* 25*th.* G. S., Boatswain's Mate, admitted; complains of severe pains in the loins; slight pain in the head; pulse 98, full and soft; great thirst; tongue slightly furred; skin natural. ℞. Calomel. gr. x., pulv. jalapæ gr. xv. M. ss.

26*th.* Has considerable febrile excitement this morning; complains much of his head; skin very hot and dry; breath very offensive; tongue much furred. ℞. Calomel., potass. nitrat. gr. iij. qq. 2da hora. Sponge skin with alcohol and water. 8 P.M. has been violently purged by the powders; omit them. ℞. Pulv. Doveri gr. vj. ss.

27*th.* Had a very uncomfortable night; symptoms as yesterday; omit powders. Bathe feet in warm water, and apply mustard. Saline draught.

28*th.* Improving. Continue treatment. Sago.

29*th.* Improving; slight tenderness over the epigastrium. Continue treatment.

30*th.* Convalescent.

Case IX.—*Nov.* 25*th.* T. W., Seaman, admitted; has been sick for the last three days, with pain in the head, &c. Symptoms at present—face flushed and swollen; eyes red and watery; great headache; skin hot and dry; pulse 110, soft and full; bowels constipated; tongue thickly coated with a yellowish fur, and moist. ℞. Calomel. gr. xij., pulv. jalap. ʒj. M. ss.

26*th.* Has a remission of fever. ℞. Mist. quin. qq. hora. Sago.

27*th.* Fever returned last evening, and continued all night; is very slight this morning; omit quinine. ℞. Mass. hydrarg. gr. iij., pulv. rhei gr. iij., pulv. ipecac. gr. ss. every third hour. Arrow-root.

28*th.* Perfectly free from febrile symptoms; says "he is entirely well, except very weak." ℞. Quin. sulph., pulv. rhei, aa., gr. ij. qq. 3da hora sumend. Arrow-root.

29*th.* Better; had a slight attack of fever last night; at present has a perfect remission. Continue treatment and diet.

30*th.* As yesterday. Continue treatment and diet.

Dec. 1*st.* Convalescent.

Case X.—*Nov.* 24*th.* C. D., Seaman, admitted; symptoms the same as the above mentioned cases. ℞. Calomel. gr. xij., pulv. jalap. ʒj. M. ss.

26*th.* Has high febrile symptoms; pulse 96, feeble and quick; skin hot and moist; tongue furred and moist; bowels freely opened by cathartic. ℞. Calomel., pulv. potass. nitrat., aa., gr. iij. qq. 2da hora s.

26*th.* Slightly improved; has still considerable febrile excitement. Continue treatment. 8 P.M., stomach exceedingly irritable. Apply mustard to epigastrium.

27*th.* Not as well; skin hot and dry; severe pain in back and legs; bowels purged too often, and stomach irritable; pulse 110, quick and feeble; tongue much furred; great thirst; very despondent. Apply emp. episp. to epigastrium. Chalk mixture if diarrhœa continues.

28*th.* Rather better; less pain; skin hot and moist; pulse 100, less quick; stomach less irritable; otherwise the same. ℞. Saline draughts qq. 2da hora s.

29*th.* As yesterday. Continue treatment. Blister to epigastrium.

30*th.* Gradually growing worse; bowels irritable; stools very frequent and watery; color yellow; stomach rejects everything swallowed; skin hot and dry; tenderness on pressure on the epigastrium; no pain in head or back; tongue very red and free from fur. Apply cups to epigastrium, and after blister; no medicine.

Dec. 1*st.* Better; took ¼ gr. morphiæ sulph. last evening; bowels in better condition; stools less frequent; retains liquids; pulse frequent and feeble; tongue less red, and rather dry in the middle. Flaxseed tea.

2*d.* No material change since yesterday, except tongue is moister and less red; took port wine and water last night, which has agreed very well. Continue treatment.

3*d.* Slightly better; tongue continues moist and less red; bowels more regular; pulse stronger. Continue wine and water.

4*th.* Much improved; has a slight vesicular eruption about the mouth; tongue natural color, and free from fur; pulse 80, full and soft; skin natural; craves food; little or no thirst; no pain; allow weak wine and water. ℞. Quinine sol. ℥ss. qq. 2da hora s. Arrow-root made with milk.

5*th.* Convalescent. Continue quinine, and wine and water; chicken soup.

Case XI.—*Nov.* 26*th.* F. E., Seaman, admitted with the usual symptoms. ℞. Pulv. ipecac. ʒss. ss.

27*th.* Emetic operated once; has severe headache; pain in the back; hot, dry skin; pulse full and rapid; tongue dry, and covered with a yellowish fur. ℞. Calomel. gr. xij., pulv. rhei gr. xv. M. ss.

28*th.* No material change since yesterday. Continue treatment with saline draughts.

29*th.* Better; no pain in head; skin moist and warm; tongue as yesterday; pulse frequent, feeble, and quick; bowels free. ℞. Effervescing draughts.

30*th.* No material change. Continue treatment.

Dec. 1*st.* Better. ℞. Quin. sulphat., pulv. rhei, aa., gr. ij. qq. 2da hora s.

2*d.* Better. Continue treatment.

3*d*. Improving slowly. Continue treatment. Arrow-root.

4*th*. Improving slowly. Effervescing draughts. Arrow-root.

6*th*. Convalescent.

CASE XII.—*Nov.* 26*th*. C. M., Seaman, admitted with the usual symptoms. ℞. Calomel. gr. xij., ext. colocynth. c. gr. vj. M. ss.

27*th*. Has considerable pain in the head; hot dry skin; frequent quick pulse, &c. ℞. Mass. hydrarg. gr. iij., pulv. rhei gr. ij., pulv. ipecac. gr. ss. M. qq. 3ta hora sum.

28*th*. Stomach irritable; headache considerable; skin hot and slightly moist; pulse 110, quick and feeble; bowels freely purged. Apply mustard to epigastrium; no medicine.

29*th*. Better; irritability of the stomach gone; pulse 90, fuller and less quick; skin warm and moist; tongue cleaned, but very red; less purging; complains of pain in loins chiefly; has but little headache. Effervescing draughts.

30*th*. Better; tongue less red; bowels in better condition. Continue treatment. Sago.

Dec. 1*st*. As yesterday; some tenderness over epigastrium on pressure. Apply cups. Continue effervescing draughts.

2*d*. Better. Continue treatment.

6*th*. Convalescent.

CASE XIII.—*Nov.* 27*th*. S. A. Boy, admitted with usual symptoms. ℞. Hydrarg. prot. chlorid. gr. x., ext. colocynth c. gr. vj. M., ss.

28*th*. No material change; cathartic only operated once, and but slightly; repeat cathartic.

29*th*. As yesterday; bowels slightly opened. ℞. Calomel. gr. v. qq. 2da hora, until it produces free evacuations.

30*th*. Improving; continue treatment.

Dec. 1*st*. No material change since yesterday; continue treatment.

2*d*. No change; continue treatment; effervescing draughts.

3*d*. Says he feels better; skin hot and dry; tongue cleaning; pulse frequent and feeble; continue treatment.

4*th*. As yesterday; skin hot and dry; tongue clean at the tip and red at the edges, furred in the centre, and inclined to be dry; bowels loose; pulse frequent and feeble; apply cups to epigastrium; continue efferv. draughts; sponge arms and neck with cold water.

5*th*. No material change; pulse 100, full and soft; has no pain; is not delirious nor comatose; skin cool, dry, and husky; slept tolerably well; bowels not as loose; tongue less red, clean, and moist; less thirsty; continue treatment.

6*th*. Rather worse; pulse 120, and feeble; skin cool and moist, tongue red and furred in centre; says he has no pain; quite rational; bowels free; allow wine and water.

7*th*. No change; appears to be gradually failing; is very restless: ℞. Camphor. gr. iij., quin. sulph. gr. ij., qq. 2da hora; wine and water, weak beef tea.

8*th*. Stupor; pupils dilated; surface cold; pulse 130, and very feeble; is sinking fast; apply sinapisms to ankles, thighs, and epigastrium. ℞. Quiniæ gr. ij., carb. ammon., camphor., aa., gr. v., qq. hora.

Died during the night; body not examined.

Case XIV.—*Nov. 26th.* M. G., Seaman, admitted; symptoms the same as in the other cases. ℞. Pulv. ipecac. ʒ ss. ss.

27th. Emetic relieved symptoms; bowels not operated upon; has no fever this morning. ℞. Hydrarg. prot. chlor. gr. xij. ss.

28th. Has no febrile symptoms; says he passed a most uncomfortable night. ℞. Mist. quin. sulph. ℥ ss, qq. 2da hora; sago.

29th. Improving; continue treatment and diet.

30th. Convalescent.

Case XV.—*Nov 27th.* T. W. F., Commander, admitted; has all the symptoms of the prevailing epidemic. ℞. Mass. hydrarg. gr. x., followed by magnes. sulphat. ℥ i.

28th. Doing well; complains of pain in forehead; skin warm and moist; pulse 112, quick, and frequent; little thirst; slept none during the night; stomach disposed to be irritable; bowels free; no medicine; toast water for drink.

29th. Slept well; feels much better; skin moist; slight headache. ℞. Quin. sulph. et rhei, aa., gr. ij., qq. 2da hora.

30th. Was very delirious last night, in consequence of too much excitement by visitors; passed a very restless, unquiet night; is better this morning; has no fever. ℞. Quin. sulph. (in sol.) gr. v., qq. 2da hora.

Dec. 1st. Improving; passed a quiet night; continue treatment.

2d. Worse; was very delirious all last night, and could not be kept in bed; took brandy and water when the attendant was absent from the cabin; pulse calm and natural; tongue clean; skin moist; bowels regular; refuses to take medicine.

3d. Is sleeping soundly this morning; did not disturb him; skin natural; pulse fuller and slower.

4th. Convalescent. ℞. Mist. quin. sulph. gr. ij., qq. 3ta hora; weak chicken soup.

Case XVI.—*Nov. 28th.* A. T., Seaman, admitted. Chills followed by fever; headache; pain in the back and limbs; tongue furred and moist; great thirst; restlessness. ℞. Calomel. gr. xij., ext. col. comp. gr. vj., M. ss.

29th. No change; cathartic did not operate; repeat it.

30th. Rather better; effervescing draughts.

Dec. 1st. As yesterday; continue treatment.

2d. Rather better; continue treatment.

3d. Better; fever very light; continue as yesterday.

4th. Had considerable fever last night; complains of very severe pains in back; applied cups, which afforded great relief; slept well during the latter part of the night; feels better this morning.

5th. Slight pain in back of head; tongue cleaner; skin cool, yellowish, and moist; pulse quick and feeble (96); bowels open; some tenderness on pressure over epigastrium; apply blister; continue effervescing draughts every 2 hours; sago.

6th. Slightly better; complains of griping pains in the abdomen; pulse 88, and feeble; skin moist and cool; tongue cleaning; bowels costive. ℞. Magnes. calc., pulv. rhei, aa., ℈j.; rice and molasses.

7th. Rather better; two stools; otherwise no change. ℞. Sulph. quin., pulv. rhei, aa., gr. ij., qq. 3ta hora s.; wine and water.

8th. No change; continue treatment.

9*th.* Better; had cold clammy skin, and was almost pulseless last night; pupils much dilated, and inclined to coma; applied sinapisms to feet; gave brandy and water liberally; has no coma this morning; pulse fuller; skin warm and dry. ℞. Calomel. gr. j., sulph. quin. gr. ij., qq. 2a hora; wine and water.

10*th.* Better; no fever. ℞. Mass. hydrarg. gr. iij., quininæ gr. ij., m., qq. 2da hora s.; small quantity of beef tea; rice and milk.

11*th.* Convalescent.

Case XVII.—*Nov.* 29*th.* W. K., Seaman, admitted with the usual symptoms. ℞. Pulv. ipecac. ℈j., antim. tart. gr. ij., M.

30*th.* Much better; bowels constipated. ℞. Calomel., colocynth ext., aa., gr. vj., ss.

Dec. 1*st.* Worse; has vomited a good deal; tongue red; tenderness on pressure over epigastrium; apply cups; effervescing draughts.

2*d.* No better; very delirious, constantly getting out of his cot; no vomiting; tongue very red; blister to epigastrium; continue effervescing draughts.

3*d.* No material change; blister has not drawn; re-apply it; continue effervescing draughts.

4*th.* Very delirious and turbulent; constantly striving to get out of his cot; pulse very rapid and feeble; skin cool and slightly moist; tongue less red, and beginning to clean; apply blister to back of neck; will not take any medicine.

5*th.* Improving; no fever; passed a quiet night; slept soundly; "feels well;" skin moist; pulse 76, full, and soft; tongue nearly clean, and natural color; moist; allow wine and water. ℞. Quin. sulph. (in sol.) gr. ij., qq. 2da hora; beef tea.

6*th.* Convalescent. Discharged, 22d January, 1845.

Case XVIII.—*Nov.* 29*th.* T. M., Seaman, admitted with the usual symptoms. ℞. Calomel. gr. xij., ext. col. comp. gr. vj., m., ss.

30*th.* Much better; effervescing draughts.

Dec. 1*st.* Improving; no pain; continue treatment.

2*d.* Fever slight; complains of tenderness over epigastrium; bowels free; thirst great; apply cups to epigastrium; continue treatment.

3*d.* Skin cool and moist; pulse quick and small (110); tongue moist, pale, and flabby; complains of nausea; says "he is free from pain;" continue effervescing draughts.

4*th.* Feels very much exhausted, with tendency to faintness in the erect position; was much fatigued by being brought ashore yesterday; continue as yesterday.

5*th.* Delirious; gets out of bed very often; very noisy and restless; says he has no pain; tongue covered with a very dark fur; diarrhœa; apply blister to epigastrium. ℞. Mist. cret. ℥ss after each stool; effervescing draughts.

6*th.* Diarrhœa has stopped; no other change; continue eff. draughts.

7*th.* Moans a good deal; has no delirium; slept tolerably well; pulse 88, and fuller; tongue cleaning, at tip and edges very red; bowels in good order; only one stool since yesterday; skin natural, and slight moisture all over the body; less thirst; continue treatment.

8*th.* Became worse last evening; pulse 110, and very feeble; skin cold and clammy; stupor; will not put out his tongue; apply sinapisms to feet and epigastrium; wine and water.

9*th*. Quite revived; skin warm and moist; answers questions readily; is rather peevish and fretful; pulse 110, rather fuller; pupils of eyes dilated; bowels moderately open; tongue dry, and covered with a dark brown fur; says he "feels perfectly well;" considerable thirst; omit wine. ℞. Mass. hydrarg. gr. v., pulv. ipecac. gr. ⅛, m., qq. 2da hora.

10*th*. Is evidently failing; pulse 120, very feeble; slight subsultus tendinum; tongue as yesterday, but moist; skin cold; thirst intense; great restlessness; threw himself several times out of his cot last night; muttering delirium; brandy and water. ℞. Ammon. carb. gr. v., camphor. gr. vj., m., qq. hora sum.; blisters to thighs, and sinapisms to feet.

Died in the evening at 7 o'clock.

Case XIX.—*Nov.* 28*th*. J. D., Seaman, admitted with the usual symptoms. ℞. Calomel. gr. xij., ext. colocynth c. gr. vj., m., ss.

29*th*. No material change; has high febrile symptoms; cathartic operated freely; effervescing draughts.

30*th*. Worse; cannot be roused; skin hot and dry; pulse rapid and feeble; eyes suffused; apply cups to temples, and blisters to ankles; no medicine.

Dec. 1*st*. Rather better; answers when spoken to; otherwise the same as yesterday; dress blisters.

2*d*. Rather better; effervescing draughts; arrow-root.

3*d*. Better; perfectly rational; continue treatment.

4*th*. No material change; complains of dull pain in the head; in attempting to get out of his cot yesterday fainted and cut his head; continue treatment; apply cold water to head.

5*th*. Pulse rapid and feeble; skin cool, clammy, and slightly yellowish; tongue nearly clean; bowels free; perfectly rational; no pain; wine and water; sol. quin. sulph. gr. ij., qq. 2da hora s.

6*th*. Better: pulse 80, full, and soft; tongue clean; skin natural; bowels regular; sleeps well; has a good appetite. ℞. Sol. quin. sulph. gr. iij., qq. 2da hora; porter and water; beef tea.

7*th*. Convalescent.

Case XX.—*Dec.* 1*st*. T. W., Seaman, admitted with the usual symptoms. ℞. Calomel. gr. xij., ext. colocynth comp. gr. vj., m., ss.

2*d*. Better; effervescing draughts.

3*d*. Better; continue treatment; sago.

4*th*. Improving; continue treatment and diet.

5*th*. Slight pain in head; some tenderness over epigastrium; vomiting; skin cool and moist; pulse 96, and feeble; tongue red, and covered with a whitish fur; cups to epigastrium; efferves. mixture.

6*th*. Applied blister to epigastrium last night; is better; no vomiting; no pain; slept none; tongue moist, red at the tip, with yellow fur in centre; bowels open; pulse frequent and feeble; efferves. mixture.

7*th*. No material change; skin cold and clammy. ℞. Mass. hydrarg. gr. v., qq. 2da hora; porter and water.

8*th*. No change; pulse very rapid, and scarcely perceptible; is sinking very fast. ℞. Ammon. carb., camphor., aa., gr. v., opii gr. ¼, m., qq. 2da hora sum.; wine and water; sinapisms to thighs and ankles.

9*th*. Sinking fast; was entirely pulseless last night; ordered wine and water freely. ℞. Ammon. carb., camphoræ, aa., gr. v., qq. hora s.; has slightly revived this morning; pulse 130, very feeble, can scarcely feel it; skin moderately warm; some moisture about the head; dry on the rest of the body; says he "feels very well;" tongue brown and dry; says he has no thirst; sordes on teeth; voice very feeble; is very restless; pupils dilated; apply blisters to ankles; continue medicine prescribed last night.

10*th.* Died this morning; body not examined.

[*To be continued.*]

Art. III.—*Observations on Endemic Peritonitis, as it appeared at Fort Wilkins, Copper Harbor, in the winter of* 1844 *and* 1845, *with Topographical Remarks on the country of Lake Superior.* By C. E. Isaacs, M.D., U. S. Army.

The wild region bordering upon Lake Superior has been as yet but imperfectly explored, by a few individuals, while to most persons it still remains entirely unknown. In former times, the numerous and warlike bands of savages threw greater dangers in the way of its exploration; and even at the present day, though this difficulty has long since ceased to exist, the natural obstacles and the hardships to be endured are such as to discourage all, but the most hardy and enterprising. The sudden and violent squalls and storms that sweep the surface of the lake are hazardous even to the experienced *voyageur;* while its bold, rocky, and often inaccessible shores seldom afford a place of refuge from their fury. The examination of the interior is attended with excessive fatigue and exposure to the inclemency of the weather; and in the summer months, the insects (the black flies and musquitoes) are extremely troublesome. The rivers are small, short, and obstructed frequently by difficult and dangerous rapids; the dense evergreen growth sometimes forms almost impenetrable thickets; fallen timber is found crossed and interlaced in every direction; very much of the country is broken, rocky and mountainous, with cliffs, precipices, and ravines of great height and depth, almost or quite impassable; and provisions must be packed and carried to great distances, as game is very scarce and not to be depended on.

Lake Superior may with propriety be compared to a vast deep and rocky basin, the edge in many places bordered by enormous precipitous trap, conglomerate and other volcanic rocks, abounding in agates, cornelians, &c., and intersected by veins of metallic copper and its ores running north and south, inclining west about fifteen degrees. There is probably no region in the world in which copper has been found so generally diffused. It is seen on nearly the whole extent of the shores of the lake, on the north and south, on almost all the islands, while it extends to an unknown distance to the south, west and north. At Copper Harbor two veins of black oxide of copper have been discovered in conglomerate rocks, to the extent of three hundred yards, varying in width from ten inches to two feet, and yielding, from the best specimens, upwards of 70 per cent. of pure copper. One of these veins is in active operation. A very rich vein of silver mixed with copper is worked at Eagle River, where shafts have been sunk to the depth of 70 feet, and the ore is equally good with that at the surface. The carbonate, yielding from 20 to 30 per cent., has been found at Copper Harbor; and discoveries to great extent may now be anticipated, as adventurers are flocking in vast numbers to the country. On landing the troops appointed to occupy the military station, in May, 1844, there were not more than a dozen persons living within as many miles, and those were explorers. A recent account gives one thousand visitors during the present season. The immense wealth of the mines will undoubtedly induce multitudes to locate in this region.

As above stated, the region of Lake Superior is almost entirely uninhabited. The American Fur Company has four trading posts, at the Sault St. Marie, at the Anse Bay, at Fond du Lac, and at La Pointe; with these exceptions there are only a few scattered individuals, and some few families along the whole extent of the southern coast.

Fort Wilkins is situated in latitude about 47° 30′ north, and in longitude 11° 30′ west from Washington. It is ten miles from Keweena Point, which is the extremity of a neck of land projecting sixty miles into near the centre of Lake Superior, and varying in width from two to forty miles. This peninsula is very broken, irregular, rocky and mountainous. The rocks are trap and conglomerate. The country is covered with a dense evergreen growth of fir, pine and spruce, with white birch and a few oaks and maple. The soil is *poor, barren, stony;* in the vicinity of the fort remarkably so.

Copper Harbor is two and a half miles long, affording a good anchorage. Opposite the entrance of the harbor, and near the landing, is a small lake; between this lake and the harbor, on a narrow neck of land is the fort, twenty feet above the level of Copper Harbor. It is built upon conglomerate rock, which has been blasted away, in order to locate the buildings. The quarters and hospital are ample for two companies, and enclosed with picket work. The water of Lake Superior is excellent, and is generally used; that of the small lake on which the fort fronts is dark colored, unpleasant to the taste, and appears to hold much vegetable matter in solution; it has been sounded to the depth of 60 or 70 feet, and has an outlet that runs by the side of the fort into the harbor. Last summer, 1844, the weather was uncommonly fine, clear, moderately warm, and so continued till the end of September. The winter was mild; the thermometer, never below zero, was only three times at that point; the mean temperature for the winter was 20° above zero. The snow was from three to four feet on a level. I am informed, by those who have resided in the country, that the winters are generally mild; that the last was not unusually so. This is well contrasted with the cold at Sault St. Marie, 200 miles below, in lower latitude, where the winters are always severe, and where the mercury frequently falls 20 or 30 degrees below zero, and has been known to freeze. The insular position of Fort Wilkins probably explains the difference of the temperature. The weather, at the time the disease about to be noticed commenced, was milder than it had previously been, and continued so for a short time. During the winter there was a sufficient supply of all the necessaries of life. Potatoes, pickles, and sour kraut, were issued to the men. There was not the slightest appearance of scorbutus.

The first cases of the disease about to be described occurred on the 28th and 29th December, 1844. They were soon followed by others. Although only thirteen cases were *officially* reported among the soldiers, many of the command were affected with premonitory symptoms; such as nausea, weight and oppression at the epigastrium; sometimes griping, burning pain, diarrhœa, and occasionally bloody discharges. Again, there were pricking, tearing, lancinating pains in the abdomen, with tenderness on pressure. Yet many of these cases were so checked, by promptly resorting to remedies, that, not running out their course, they were not reported; nor were some severe cases in the families of officers reported on sick list. One case, that of a soldier, terminated fatally—it will be given in detail. The disease was marked by great severity of symptoms, by their proneness to recur, and by unusual obstinacy and resistance to the action of remedies. The plan most effectual to arrest premonitory symptoms was, abstinence from all food, counter-irritation, sinapisms, and hot applications to the abdomen—small doses of mass. ex hydrarg. c. opio, followed by cups, pediluvia and enemata. If the disease did not *rapidly* yield, copious bleeding followed by cupping, calomel and opium, in doses to act gently on the liver and intestinal canal, and to relieve pain, were the appropriate means. I found it necessary in most cases to repeat bleeding and cupping three or four times. In the latter stages, blisters were used. In the first two cases only did I think it necessary to touch the mouth with mercury, and it is questionable whether it was of any service. The disease in its last stages had a strong tendency to pass into dysentery.

From the symptoms and aspects of all the cases carefully considered, and from the post-mortem developments in the one fatal case, the disease seems to have been an *obstinate* and *intense* PERITONITIS; the inflammation in the latter stages involving the mucous coat of the stomach to some extent, of the small intestines, but particularly that of the colon.

The *cause* of this disease is entirely unknown. It was at first attributed to the provisions. As, however, they were of good quality, no changes in them being discoverable, and as the troops have continued to subsist on the same supply ever since, without consequent disease, the cause cannot with any probability be referred to the diet of the troops. By some the water of the small lake was supposed to be the cause; but several persons drank from it during the whole of the past summer, fall, and winter, without any bad effect. By many it is used at the present time without detriment to health. During the prevalence of the disease, the weather was somewhat milder than it had previously been, and hence atmospheric vicissitude may have had influence in causation. Endemic atmospheric agency is probable, as a similar form of disease, attended with the same symptoms, prevailed at La Pointe, 180 miles west of Copper Harbor, four years ago, destroying about thirty of the inhabitants. This was also in the winter. I regret that it has not been in my power to obtain more precise information as to that endemic.

The symptoms and treatment of the disease are best illustrated by the detail of two cases—the one terminating favorably, the other fatally.

CASE.—D. C., Hospital Steward, age 30;—nervo-sanguine temperament; for some years past subject to attacks of dyspepsia, reported sick 28th Dec., 1844. Complained, for some time past, of want of appetite, flatulency, head-ache, pain in the abdomen,—has now nausea, erratic pains in the abdomen, and principally in the epigastric region; tongue white, and slightly furred; pulse small, frequent; some restlessness and debility. Took yesterday some blue mass and ol. ricin., which operated gently.

Ordered cups to the abdomen, to draw eight ounces of blood; a large warm poultice to abdomen. ℞. Pulv. opii grs. ij., mass. ex hydrarg. grs. x., to be taken at once.

10 P. M.—Has been quite relieved till now, when increased nausea, thirst, and some *tenderness* in the abdomen appeared. Ordered v. s. ad ʒxx.; poultice continued; pediluvium and warmth to the feet; enema emollient; and g. opii grs. iij.

29th.—After passing an easy day, the same symptoms of pain and tenderness on pressure, nausea, &c., returned at 9 P. M., though not so severely. Ordered v. s. to ʒxvi.; poultices; enema, and g. opii grs. iij., in a pill. These gave relief for a time, but the symptoms returning, I drew ʒviii. blood by cups; continued poultice; gave another enema, and repeated three grs. opium. This gave *perfect* relief, and he remained free from all pain, dressed, and amused himself with reading, and walking about the room, until noon of

31st, when he was *suddenly* seized with sharp, pricking, stinging pains throughout the abdomen, extending in a line *from the pubis to the centre of the sternum*, diffused tenderness of the abdomen, anxiety, general feeling of distress; straining, with desire to evacuate the bowels; a sensation as if distended with wind.

Ordered v. s. to ℥xx., and to syncope; five cups to abdomen drew ℥v. blood; poultices; enema as before; and g. op. grs. iij., mass. ex hydrarg. grs. x., followed by ol. ricini. These, with another enema, operated, and produced great relief. I then ordered g. op. grs. ij., calomel. grs. iij., every three hours.

At midnight, abdominal pain and tenderness returned; took 16 oz. blood, which produced syncope; cupping to 8 oz.; enema and poultice ut supra, and this with relief.

1st January, 1845; 8 A.M.—Took three powders of cal. and opium. Abdominal pains returned; took 8 oz. blood by cupping; fomenting poultices, after which applied a large blister to abdomen, which drew well.

9 P.M.—Pains returned; drew 6 oz. blood, by cupping around and near blister; calomel. grs. xx., ol. ricin. ℥i., opii grs. ij., and an enema. After this had operated, gave, on account of pain, opii grs. iv., camphor. grs. x., lupuli grs. x. Mouth now slightly sore from mercury, but the powders of calomel and opium were continued every four hours.

2d January, 8 P.M.—Abdominal pain returned violently. Bled to 20 oz., and syncope; opium, 6 grs., and an enema. Afterwards, cicutæ grs. xv., which gave entire relief till 11 P.M., when I gave 4 grs. opium, after which he rested well all night.

January 3d.—Easy till 8 A.M., when slight pain was relieved by an enema. Mouth very sore, and calomel discontinued. He remained free from all pain and uneasiness; no tenderness on pressure over the unblistered surface of the abdomen, nor on taking a full inspiration was any distress complained of; all symptoms had disappeared.

4 P.M.—The pains returned most severely; great tenderness on pressure of the abdomen; sharp, darting, stinging pains from *pubis to sternum, and even as high as the chin;* pains in the *thorax, testicles* and *penis;* great anxiety and restlessness; thirst; load at the pit of the stomach; oppression about the heart; pulse frequent, strong, hard, corded. Placed him as upright as possible; took 24 oz. blood from a large orifice, which induced complete fainting, on recovering from which

he was seized with convulsions, succeeded by faintness, prostration of strength, skin covered with cold sweat, extremely feeble pulse. This state continued one hour and a half, when nausea and stinging pains *in epigastrio* recurred. Ordered camphor and lupuline, each, grs. xv.; opium, grs. ij.; calomel, grs. ij.

8 P.M.—Peculiar stinging, pricking pains returned, with great abdominal tenderness; pulse 120, tense, and corded. The venesection had been carried to the extent of eleven pints, general and locally, and the great weakness, nay prostration of the patient, rendering farther blood-letting inadmissible. Ordered opium, grs. iv.

10 P.M.—Pain growing worse; *dry* cups were applied to every accessible portion of the abdomen and chest, followed by sinapisms to the parts, with best effect.

Midnight.—Pains returned; drew ℥4 blood by cups; this gave great relief.

January 4th, 7 A.M.—Pains returned; reapplied dry cups over abdomen and chest, where there was no blistered surface. Ordered opium, grs. vj., camphor, grs. x., which gave great relief. Finding soreness of gums to be nearly gone, ordered, ℞ camphor, ʒj., ipecac., grs. xii. calomel, grs. iv., et divid. in pulv. no. xii., one every hour.

8 P.M.—Slight pain returned. Removed by cupping dry with tumblers.

9 P.M.—Repeated dry cupping. Opium, grs. vi., camphor, x. grs., calomel, grs. j., m. take at once.

January 5th, 1 A.M.—Pain returned; relieved by the same remedies.

5 A.M.—Found that the pains and other symptoms had returned with intense severity, producing the most excruciating agony and distress I had ever witnessed; the sufferings of the patient cannot be expressed; he told me he had lost all hope, and entirely despaired of relief.

The remedies having so far failed to destroy the force of the disease, or to prevent the return of symptoms of such extreme agony, I determined to make a sudden and severe counter-irritation. I cut a piece of linen one fourth the size of the abdomen, dipped it in alcohol, and spread it evenly on that surface, and setting it on fire allowed it to burn out. This I repeated. This application produced immediate blistering and *intense* pain for a few moments, but removed entirely the *morbid pain.* I then gave opium, grs. vi., camphor, grs. x., and ordered ʒss. ungt. hyd. fort., to be rubbed into the groin on both sides.

6 P.M.—Pain returned. Applied again the blister of *burning alcohol* in two places, and gave opium, grs. iv., camphor, grs x. The patient was perfectly relieved, and in half an hour was asleep; he remained free from pain.

January 6, 8 A.M.—Much better; rested well since last report; pulse slightly corded and frequent; gums very sore.

2 P.M.—Two very offensive evacuations of dark brown feculent matter.

4 P.M.—Complained of pain in the bladder and penis; gave opium, grs. iv.; continued powders of cal., camph. and ipecac., every 6 hours; ordered enema of opium, ʒi., and starch.

Half-past 6 P. M.—Evacuation from the bowels. Half-past 7, gave opium, grs. viii., when he slept till 9 P.M.; then griping pains came on with straining, and ineffectual efforts to evacuate the bowels. Repeated enema; gave 10 grs. g. assafœtida.

January 7, 6 A.M.—Rested well since last report; has just had a stool, dark colored and offensive; continue powders.

9 A.M.—Mass. ex hyd., grs. ij., opium, grs. viij., on account of pain.

11 A.M.—Still in pain; ordered opium, grs. xii. Omit powders of cal., camph. and ipecac.

2 P.M.—Rubbed in ʒij. ungt. hyd. fort. Gave op. grs. vi., mass. ex hyd. gr. i. I now determined to keep the system *constantly* under the influence of opium and mercury, not waiting for recurrence of pain, and to use glysters of starch and laudanum to remove tenesmus, and to meet other symptoms with appropriate remedies.

4 P.M.—Repeated opium and blue mass. At 8 P.M., an evacuation from the bowels; opium and blue mass, as before.

11 P.M.—Rubbed in ungt. hyd. ʒiss. He had a dark brown discharge from the bowels, most acrid and offensive.

January 8, 7 A.M.—Had been up several times; during this day had several discharges; took 40 grains opium yesterday and last night.

January 9, 8, A.M.—Gave, during night, 30 grains of opium, with three glysters, ʒiss. tinct. op. in each; has singultus, and frequent calls to stool; enema of starch and laudanum, ʒiss.

Half-past 9.—Severe singultus; ordered camphor. grs. xv., assafœtid. grs. x.; continue opium and blue mass this day.

8 P.M.—Hiccup very distressing; assafœtida, ℈i., in pills.

10 P.M.—Easy till now; ordered opium, grs. vi., mass. ex hydrarg. grs. ij., assafœtid. ℈i., take at once. At midnight hiccup returned; repeat assafœtid., op. and blue mass.; rub in ungt. hyd., ℥ij.

January 10, 7 A.M.—Hiccup gone; has frequent watery stools; repeat enema.

3 P.M.—Free from pain since last report; one stool; gums sore; tongue white and thickly furred.

January 11, 1 A.M.—Easy until now; has aching, burning, constant pain in the abdomen, in a line from pubis to sternum, and severe pain in the bladder and penis. Took, at 10 P.M., 6 grs. opium, 2 grs. blue mass. At midnight, 12 grs. opium, with blue mass. Took now 12 grs. opium, with mass. ex hyd.

Half-past 2 A.M.—Pulse 108; some tension; skin warm; pain continues. Took 12 grs. opium; extensive dry cupping to abdomen and chest.

3 P.M.—Pain continues. Took 15 grs. opium; rubbed the surface of the abdomen, chest, upper and outer parts of the thighs, with a liniment of capsicum, ammonia, and spir. terebinth, and then applied to the abdomen a moist plaster of opium, camphor and soap. The pains now disappeared.

4 P.M.—Still easy. Pulse 120, soft.

January 12, 8 P.M.—Has improved steadily till now, when he has just had six evacuations, small and watery; an enema of opium, ʒj., checked this.

January 17.—Continued improving; remedies gradually withdrawn. This day seized with severe griping pains in the abdomen; in three hours he took 24 grs. of opium with perfect relief.

January 18.—Perfectly easy.

January 27.—Used warm bath to-day with benefit; continued improving till 29th, when diarrhœa, with severe gripings, set in; had, in the course of the forenoon, 20 evacuations of dark brown matter with some blood; checked this with opium. Made four points, as issues, with nitric acid over the abdomen.

February 1.—Vomiting of bile, and some diarrhœa; used dry cups to the surface, and stimulating liniment.

February 3.—Gave 2 grs. quinine every two hours, with opium for two days.

From this time improved daily till 19th March, when he returned to duty.

April 18.—This patient suffered from relapse. The abdominal pains recurred. They were attended with occasional vomitings. The attack continued severely until the 27th, when he slowly recovered. I depended on opium and mercury to save him. He took blue mass and calomel till the gums became sore. They were combined with morphia and black drop, which were used to a very great extent. These forms of anodynes were substituted for opium, as that had been so largely exhibited in the former attack. Pediluvia, blisters, frictions with ungt. hyd. fort., were diligently used.

May 31.—Found Carnes in bed with severe abdominal pain, for which he had applied a blister during the night. Black drop and morphia were freely used till June 1st, when severe pricking pains induced me to cup him on the abdomen to 6 oz.; to give morphia in large doses as 2 grs., also black drop in doses of from 80 to 150 drops. At midnight he rested well; awoke free from pain; skin moist; pulse slow; pupils contracted, and mind somewhat affected by the anodynes. He left Fort Wilkins on the 4th June, and has entirely recovered.

Case II.—December 29, 1844, Private Summers, Hospital Attendant, age 35; nervo-sanguine temperament; light eyes; brown hair; reported sick this day; general indisposition yesterday; headache; loss of appetite; tongue furred; nausea. Ordered sinapism to the abdomen; ℥ij. sulph. magnes.; pediluvium; low diet, and repose. In the afternoon felt better and attended to duty. At night ate freely of animal food, and

December 30, 8 A.M. complained of nausea and vomiting; sharp pricking pains in the abdomen, extending in a line from pubis to sternum; great thirst; heat of skin increased; pulse small, frequent and slightly corded. Ordered bleeding to 32 oz., which induced syncope; took 8 oz., by cupping, from abdomen; large poultice over abdomen; 3 grs. opium taken; heat to the feet during the day.

8 P.M.—Pain returned, but not so violently. Bleeding to 16 oz.; cupping to 6 oz.; poultices to abdomen; enema; Calomel, grs. 3, opium, grs. 1, take it every third hour. This prescription was continued till evening of 31st, when the mouth became very sore; the patient free from symptoms, and doing well, till

January 2, 11 A.M., acute, darting pains in the abdomen recurred; severe griping and tenesmus, with stools resembling diluted port wine, and very offensive smell; severe lancinating pains in the penis and groins. The patient being weak, pulse very feeble, I could not use blood-letting generally. Ordered cups to abdomen; poultices; enema of starch and laudanum; demulcent drinks; g. opii., 3 grs. every third hour. These remedies relieved symptoms; patient much better till

January 3, 10 A.M.—Pains returned, and were relieved by three grain doses of opium, and glysters of starch and laudanum.

9 P.M.—Nausea; vomiting; sharp, pricking pains in abdomen;

meteorism. Ordered opium, grs. vi.; calomel, grs. iij.; blister near the first.

January 4, 2 A.M.—Soreness of gums disappearing; pain severe. Ordered opium, grs. vi.; calomel, grs. iij.

11 A.M.—Repeated op. and cal. at 7; dressed the blister with ungt. hyd. Opium and calomel at 9; had three evacuations, which were highly fetid, and resembled charcoal mixed with water; tenesmus and griping. Ordered enema of starch and laudanum; ℞. Op. gr. i., ipecac. gr. i., calom. $\frac{1}{2}$ gr., every two hours.

3 P.M.—Stools frequent and patient sinking under them; enema of acet. plumb. and laudanum; omit pills and give acet. plumb. grs. iij., op. grs. i., every two hours.

4 P.M.—Patient sinking; wine; continue acet. plumb., c. op.; pain ceased.

January 5.—Blistered surface looked well; circulation more energetic; slight pain and tenderness in right iliac region. Continue wine and pills.

January 6.—Patient rapidly declining.

January 7.—Dead.

Autopsy—January 8, 10 A.M.—The peritoneum covering the intestines was highly vascular, particularly that of the lower third of the ileum and of the ascending portion of the colon. Coagulable lymph was effused among the convolutions of the small intestines, and a pint of reddish colored serum was found in the peritoneal sac. The splenic portion of the mucous coat of the stomach was very vascular, and dark colored vascular patches were scattered over the mucous coat. The lining membrane of the colon and rectum exhibited marks of much recent inflammation, with some ulceration, particularly in the lower part of the rectum; patches of old cicatrized ulceration also in the rectum. About eighteen inches from the valve of Bauhin, in the colon, there was a thickening of the muscular and cellular coats to such an extent as to diminish the calibre of that intestine one-half; this, probably, is the result of previous chronic disease. The man had suffered severely from Asiatic cholera, and for years after with chronic diarrhœa. Spleen mottled and darker than usual. Liver natural. Gall bladder distended with bile. No further examination could be made.

The above was the only fatal case.

Art. IV.—*On the Employment of Quinia in Large Doses.* Communicated in a letter to the Editor. By Austin Flint, M.D., Editor of the Buffalo Medical and Surgical Journal.

Buffalo, *Jan.* 14*th*, 1846.

Dr. Lee,—Dear Sir:—In perusing the article by Dr. Van Buren, in the last number of the New York Journal of Medicine, the following paragraphs arrested my attention: "As I am no longer one of their number, I may assert without impropriety, that to the medical corps of the army belongs the credit of first testing this practice (i. e., treatment of miasmatic diseases by quinia in large doses) extensively on our continent, and establishing its superiority."

"Whether large doses of quinine are as well suited to miasmatic diseases occurring in the North and West, or at the South, remains to be proved."

I feel bound, in justice to myself, and the facts in the case, to refer your readers (with your permission) to some observations of mine which were made and reported to the profession, prior to the emanation of the circular from the Surgeon-General to the Medical Corps of the Army, which called forth the report of Dr. Van Buren, published in your last Number, and also reports of other members of the medical staff, some of which have been communicated to the profession. In so doing, however, I do not of course impute to your correspondent any want of good faith in the statements contained in the paragraphs above quoted; nor have I the least desire to derogate from the value of the testimony in favor of the employment of quinia in large doses, afforded by the extensive experience of the army surgeons in Florida, and the merit due to them, and to the Surgeon-General, in rendering the results of this experience available by means of the published reports. I would add, that I trust your readers will not think that I have any wish to arrogate to myself any peculiar credit, in referring to whatever claims I may have to precedence in these investigations; nor that the interest in the matter which this communication would imply, is greater than is both natural and proper.

In 1839, I made a series of observations on the use of quinia in large doses, in cases occurring in private practice, and among the United States troops stationed in this city. I kept a minute record of forty cases in which the quinia was administered in doses of from 5 to 40 grains. These cases I made the basis of a communication, which was published in the American Journal of Medical Sciences, in October, 1841. I do not purpose here to recapitulate the details of that communication. Those of your readers who may have any interest to examine it, can, of course, refer to the number of the journal in which it was originally published. Suffice it to say, that I reported the facts as sufficient to establish the following positions: 1st. The safety and expediency of treating intermittents with large doses of the quinia. 2d. The propriety of commencing at once with this remedy, without preparatory treatment, on the ground that the symptoms which have been usually supposed to call for emetics, cathartics, &c., as preliminary measures, were the *effects* of the continuance of the disease, and would be most promptly and effectually relieved by curing the disease itself as speedily as possible. 3d. That there are few instances of complications of this disease in which it would not be proper to arrest the disease by large doses of the specific remedy, without waiting to relieve the complications. 4th. That the patient has more security against relapse, the sooner the paroxysms are interrupted. 5th. That in cases of gastric irritability, when the quinia is not borne in doses of one grain, it may be well borne in doses of five grains. I did not enumerate these positions in this formal order, but the reader who chooses to refer to the article, will see that they are advanced and maintained. I also stated my conviction, that by carefully watching the early development and progress of cases which terminate in remittent fever, periods of partial intermission might be ascertained, when, by administering the quinia in large doses, the disease would be arrested in many cases. I then supposed, in common with most practitioners, that the remedy was incompatible with an active, febrile movement; later experience, in addition to the ample testimony of others, has satisfied me of the erroneousness of that idea.

The instructions of the Surgeon-General to the officers of the medical staff, to report the results of their experience, were issued in 1843. Dr. Van Buren states that he was first induced to employ this method from the experience of the French army surgeons in Africa, and the experiments of M. Piorry in 1838–39; and, afterward, by the experience of Surgeon B. F. Harney, U. S. Army, in 1841, he was led to pursue it more generally. The originality of the method has a date prior to my observations. Dr. Elliotson, Dr. Allan, and others had recommended it, as well as M. Piorry, and other French writers. I may repeat here that I was not aware when my experiments were made that this was the fact, but I ascertained it before publishing the results of my experience. I am not aware that any extended formal observations were published in our country before my communication. I have not taken pains to investigate this point, and I would not, therefore, by any means, assert that I am entitled to the merit (if there be any merit) of precedence in this respect. It is altogether probable that the plan had been tried, to a greater or less extent, by practitioners who did not communicate their experience to the profession.

As an illustration, however, of the light in which doses of quinia, now administered without hesitation, were regarded generally at the time my article was published, I may mention that, but a few months previous, the mistake of a patient, through which twenty-five grains were taken in the course of a day, was esteemed, by an eminent physician, of sufficient importance to be chronicled in one of our most popular medical journals!

The reader will observe the bearing of the facts which I have stated, upon both of the statements quoted from the article by Dr. Van Buren. With reference to the first of these statements, it is a matter in which, of course, the profession will take but little interest. The second statement, however, involves considerations of some scientific importance. If the occasion for the personal interest which I have expressed in the first be not appreciated, it will, at least, be deemed not unimportant to adduce my observations as showing that the same therapeutical principles in this disease, which have been found applicable at the South, have been equally so at the North and West.

Having been induced to address you on this subject, I will avail myself of the occasion to offer a few additional remarks on the use of quinia in large doses. Seven or eight years' farther experience of this remedy in intermittents has served to confirm the general views, a synopsis of which I have just presented. But there is some danger, as it seems to me, that practitioners may be led by the attention which of late has been directed to this mode of treatment to pursue it to an extreme. I have heard of sixty and seventy grains, or more, being given at a single dose, or within a short period. Judging from the effects produced by forty grains given in the space of half an hour, which was the maximum in my experiments, I cannot deem this practice judicious, even if it be devoid of danger. I did not dare exceed this quantity, nor did I feel any disposition to repeat it in other instances. At the same time it should be stated, that the unpleasant effects in this case were transient, leaving no permanent injury, but entire exemption from the recurrence of the paroxysms. My course has been, in treating intermittents, to give from three to five grains at a dose, and to repeat in one or two hours, according to circumstances, rarely, if ever, exceeding twenty grains in the twenty-four hours. As the disease exists in this locality, I have abundant reasons to be satisfied that this method of employing the remedy suffices for all cases. By pursuing this course the effects, from constitutional idiosyncrasy, or other modifying causes, can be watched and determined, without exposing the patient to actual danger, or, at least, the disagreeable effects sometimes following the remedy.

I have also been led to believe that by continuing the remedy in doses of three or five grains, daily, for some time after the paroxysms are interrupted (say for two or three weeks), the patient is less liable to relapses. It will not render him exempt from relapses, but, in so far as I can judge without having gathered recorded data on the subject, he is less likely to suffer from a speedy recurrence of the disease. That the system will suffer from continuing the remedy in larger doses than are just specified, I regard as an entirely gratuitous supposition. While prosecuting my observations formerly I administered it in doses of 50 grains daily, and continued it steadily for several weeks, in a case of obstinate neuralgia, without any ill consequences; but it should be added, without producing any impression on the disease. Large doses continued for such length of time, are not, however, to be recommended, since if the desired effect be not produced within three or four days at farthest, it is not probable that the treatment will be successful, and under such circumstances we are not justified in persisting in the use of any remedy.

The treatment by large doses *ab initio*, possesses advantages which our patients would hold in great consideration could they appreciate them. In nearly half the cases which will occur (I speak from my experience in this locality) in general practice, a second paroxysm will not recur if we are called to prescribe directly after the termination of the first; and the instances will be rare in which the patient will have to experience a third paroxysm. Cases, therefore, which, under the system of preparatory treatment and small doses, would have been more or less protracted, being speedily arrested, the debility incident to the continuance of the disease, and the various secondary disorders flowing from this continuance are avoided; the patient loses but little time, and the system suffers comparatively little. It has not unfrequently occurred to me to ward off relapses by taking cognizance of the first intimations of their approach, and resorting promptly to the remedy in adequate doses. By pursuing this course, although we cannot place our patients beyond the liability to attacks for a considerable period after the disease has been once incurred, yet the means of relief, or prevention, are so precise and sure, as well as prompt in their efficacy, that this liability imposes but trifling inconvenience. Notwithstanding our use of this specific is entirely empirical, the *modus operandi* being removed from the application of rational principles of explanation, there is probably no disease the treatment of which is reduced by experience to such definite and certain rules as that under consideration. If principles of therapeutics generally had the same character, medicine would have strong claims to the title of an *exact science*.

The applicability of the quinia to fevers of a remittent and continued type is a subject of much interest at the present time. The idea that the presence of febrile movement positively contra-indicates its administration, for a long time deterred practitioners from venturing to employ it in these forms of febrile disease. Abundant testimony is now before the profession to disprove this idea; and it must soon be regarded as obsolete. Prof. Mitchell, of Transylvania College, in a late number of the Western Lancet, advocates its use in fevers of every description—continued as well as remittent, and adduces his own experience in confirmation of this plan. I have also been credibly informed that some western practitioners, viewing its medicinal properties to consist in an antagonism to the febrile condition *per se*, whether it be dependent on essential fever, or symptomatic of local inflammation, prescribe it freely in the latter case as well as in the former. I have known of its administration in a case of pneumonitis in doses of ten grains, morning and evening, for two consecutive days, and can testify that it produced in this case no evil results, and did not retard the march of the disease towards a favorable issue. It would be difficult to reconcile this practice with preconceived notions, or any known principles of pathology or therapeutics. Nevertheless, the singular virtue which the remedy possesses in intermittents has been only empirically established—the rationale is beyond comprehension; and, in enlarging the sphere of its efficacy in curing disease, we must be guided wholly by the same method of investigation. Our progress must, in the present state of our knowledge, be altogether inductive: we can assume nothing *à priori*, nor have we any grounds even for synthetic speculations on the subject. Facts which have been presented to the profession are sufficient to authorize experimental observations of its effects in fevers of every type, and, perhaps, even in inflammatory affections; and it is to be hoped that a sufficient collection of data will ere long be available for deducing some general principles of its applicability to these forms of disease.

My experience with this remedy in the mild remittents indigenous here has been quite limited. I have, however, made use of it to some extent, and, so far as I may be permitted to judge, without professing that the number of observations is sufficient to warrant any positive inferences, it has in some cases seemed to check the disease in its early stage, and bring it to a speedy and happy termination. As an illustration of this I will subjoin the following case transcribed from my case book.

S. H.—M. D., aged about 27, delicate constitution; resides in a part of the city somewhat exposed to miasma. Began to feel headache, pain in moving the eyes, and general *malaise*, on the 24th July, 1845. On the 25th he took some sup. tart. potassæ; 26th, at evening, took an emetic, which acted freely both as an emetic and cathartic. Experienced some chilly sensations at various times on this and subsequent days, but no distinct chill. Has had attacks of intermittent and remittent fever formerly. 27th. Took calomel, grs. x., followed by a Seidlitz powder, which operated freely. 28th, P. M., requested me to attend him, when I saw him for the first time. Symptoms as follows: temperature of skin somewhat raised, and dryness of the surface; pulse 110, somewhat corded, not full nor hard; headache, dizziness on raising the head; tongue coated, white at sides, and dark in centre; thirst; anorexia. No local pains, excepting in the head; no cough, nor tenderness of abdomen. The latter soft and undistended. Urine scanty and high-colored. The following was advised: P. Doveri. grs. iv. every four or six hours, as his sensations of its effect should dictate. Spts. nitre dulc. ℨj every four hours. Weak lemonade, sponging with diluted spirit, and mustard pediluvium at night.

29th.—Patient sitting up, free from fever and headache, and eating chicken broth. Stated that he began to perspire last evening, and continued to do so for several hours; after which he slept soundly, and awoke a new man. The disease is either a febricula or the present is a remission.

30th., P. M.—I was again desired to see him; I found him with accelerated pulse, hot skin, headache, &c. I learned that toward evening of the preceding day he had return of febrile symptoms, which had continued through the night. His friends told me he had been somewhat delirious during the night. Had had one dejection this morning. Prescribed the following:—

℞. S. Quiniæ ℈j
P. Doveri ℈j
M. Divide in chart., No. 5.

One to be taken immediately, and if no inconvenience, to be continued every six hours.

31st, A. M.—Patient perspiring freely; pulse of natural frequency; head clear. He began to perspire about midnight. Had taken 3 of the powders previously, which had not occasioned the least inconvenience. Continued powders every six hours. Had had no chill preceding the recurrence of the febrile movement, but felt chilly constantly, notwithstanding the heat of surface.

P. M.—Found him with fever. Directed quinia to be continued through the night.

Aug. 1st.—Febrile movement continues; passed a restless and uncomfortable night.

This morning took castor oil, the bowels not having been moved for two days.

P. M.—Fever continues, but less than on the preceding evening. Oil operated freely. Had taken 4 grs. of quinia at noon, and felt somewhat disinclined to continue it. Complained of ringing in the ears, but it is doubtful if it proceeded from the quinia. Has had this symptom previously. Directed grs. ii. to be given every four hours.

2d.—This morning found him in free perspiration; no febrile movement. Had began to perspire shortly before my visit (at 9 A. M.). Had been restless through the night, but more comfortable than during the two preceding nights. Expressed much hesitation and doubt about taking the quinia, but, at length, consented to take grs. ii. every four hours. [Being a medical practitioner, he was, of course, aware this was not the current practice in such cases.]

P. M.—Still perspiring, which has been encouraged by warm drinks and bed-clothes. Has had singing in ears, and tension of forehead, pretty evidently from the quinia. Has passed a comfortable day. At his desire prescribed calomel grs. ii., p. Doveri. grs. iii., every four hours, omitting the quinia. He has taken 40 grains of the latter up to the present time (3 days). Tongue is covered with thin, moist, yellowish coat.

After this date he had no return of fever, and was abroad in a few days. Since his recovery he has had an attack of intermittent, which was promptly arrested by quinia.

In reviewing the foregoing case, I think the practical reader will coincide in the opinion that the symptoms indicated an attack of remittent fever, which he would not be expected, with the usual practice in such cases, to terminate in four or five days. The patient, a practitioner of medicine, although he felt considerable antipathy, at the time, to the quinia, has been induced to become a strong advocate for its use in similar cases.

The testimony of Dr. Mitchell (above referred to) has led me to make trial of this remedy in a case of typhoid fever which has recently occurred in my practice. Of course, I would not presume to draw any conclusions, excepting those of a negative character, from a single case. This trial has satisfied me that it may be given without impropriety in this form of fever. It was given repeatedly during the progress of the disease to the amount of 20 and 25 grs. in the 24 hours. Convalescence was established on the 18th day. Although the disease was not arrested, yet, if it were proper to make deductions from this case alone, they would be favorable to the immediate effects of the remedy. The case has increased my interest to test its influence by farther trials. This will not perhaps be practicable to much extent, as the typhoid form of fever is of rare occurrence in this locality. I would venture to suggest it as an object of scientific interest, if not importance, to those practitioners in the eastern part of the State, and in New England, who have abundant opportunities to witness the disease.

Art. V.—*On the Chemical Changes which take place in certain Medicinal and Poisonous Substances in the Stomach.* By E. C. Bidwell, M.D., of Brooklyn, N. Y.

In the recent edition of "Thomson's Conspectus," in the article on Toxicology, it is stated that the *carbonate* is the only poison of lead, and that all the salts of lead, and also the red oxide, are converted into the carbonate after being taken into the stomach. An equivalent observation is to be found in the work of Christison on Poisons. I presume it is the doctrine generally received and taught, as I know it is by one of the most eminent professors this country affords.

From such authorities I know it is not prudent to differ hastily, or without a careful examination of all the premises, and the most rigid reasoning upon them; yet, having entertained a different opinion in regard to this article, and some others which may be arranged in the same category, and finding that opinion corroborated by such observations as I have been able to make, I am induced to give it, and the reasons of it, to the profession, and to bespeak for it their attention, trusting that the whole subject, now confessedly obscure, will yet be completely elucidated, and the exact truth ascertained.

The hypothesis objected to recognizes, and is indeed dependent upon the principle, which may with equal propriety be extended to include every other chemical element, that it is only in a single form or combination capable, *theoretically* and strictly, of producing a particular train of physiological effects, and that all other forms or combinations of that element, which *empirically* produce the same effects, only do it after undergoing a change of their chemical constitution, by which they are severally brought to the single form first mentioned; which change is effected after administration by the reaction of the acid or saline secretions of the stomach. This principle I would not wish to question, but rather to maintain, since it is equally essential to the views I propose, as to those I refute. It seems not to be admitted, however, by the United States Dispensatory, and by the systematic works on the *Materia Medica;* for they treat of each metallic base as having a physiological action common to all its compounds, and of each compound as possessing that common property, with certain others superadded, peculiar to itself. It is nevertheless sustained by the whole analogy of chemistry, inasmuch as all substances, simple or compound, when they enter into new combinations, lose most, often all, of their sensible and physical properties; and it would be the merest chance, at least not to be calculated from any previous knowledge of the elements concerned, if any two distinct compounds of the same element should possess properties identical, or even similar. That, through all their repeated and radical changes in all other respects, any substances should retain their original medicinal properties, is so exceedingly improbable as to require to be substantiated by the clearest proof, before our credence is demanded for it.

It may be assumed then as, if not demonstrated, at least probable, and so far as we know undenied, that certain medicinal and poisonous substances do meet with certain chemical changes in the stomach, by which they are converted into another substance, having an element in common with them—and that the new substance so produced has the same action on the animal economy as when administered in its own character. But that in the case of the article now under consideration, it is *not the carbonate* which is so produced, or which either so produced, or taken in substance, is capable of producing, without any further change, the effects attributed to it. *Colica pictonum*, paralysis of the extensors of the hand, and the general symptoms constituting the lead cachexy, seems to me to be probable from the following considerations.

1. *Its insolubility. Corpora non agunt nisi soluta*, was the ancient maxim, in chemistry and in medicine. If not an universal truth, it approximates to it, and there are very few general rules or principles of which more can be said. Insoluble substances, taken into the alimentary canal, may act locally as foreign bodies, producing various degrees of irritation, according to their different physical properties; but it cannot be maintained that any, remaining insoluble, are absorbed in the solid state, or act upon the constitution, except as it is affected through sympathy with the local irritation; in which case the symptoms would not be of a character to indicate the operation of a specific poison.

2. *Its chemical relations.* Carbonic acid has *less affinity* than almost any other acid for lead, as well as for most other bases. All the carbonates are readily decomposed by the stronger acids *out* of the stomach, and so far as our observations teach, *in* it also. A familiar example of the latter is to be found in the carbonate of magnesia, the purgative operation of which is known to depend upon the amount of acid present in the stomach. I know of no reason why we should not expect it as a constant result. Examples of the former are extremely frequent in the laboratory and in the arts, and one is furnished by the subject of the present discussion. Of course it is exactly in point. One of the common modes of preparing the acetate of lead, is by subjecting the carbonate to the action of acetic acid. In that operation the carbonic acid is driven off by another, which has a stronger affinity than its own for the lead. This being the case, it is manifestly impossible that the acetate should be reconverted into the carbonate, simply by the presence of carbonic acid, though this, if I understand it, is the doctrine taught by the

authorities quoted at the head of this article. It is true that if the *neutral* acetate has been deprived of a portion of its acid by the action of heat, or certain re-agents, or an excess of the base, and in that way reduced to a *basic* or *sub* salt, carbonic acid, *out* of the stomach, may unite with so much of the lead as will restore the remaining acetate to its neutral condition. But *in* the stomach, even if carbonic acid were always present, the same reaction cannot take place, because there is also a stronger affinity always in operation. *Chlorine*, in free muriatic acid, in muriate of ammonia, and in common salt, is always present in healthy gastric juice; it is capable of decomposing *all* the carbonates, of whatever base, and also most other salts of lead. In all these cases there is formed the *chloride of lead;* and this I conceive is the product which, with the conditions above described, we ought to expect, and which, whether produced by double decomposition in the stomach, from the carbonate, the sub-acetate or oxide of lead, or otherwise introduced into the system, is the only immediate cause of the circle of phenomena known as the poison of lead.

The reason then why the carbonate is practically so much more injurious than any other salt of lead ever taken into the stomach—the chloride itself being unknown in the arts and in medicine—is simply that it is more easily decomposed than any other; and any portion that may not be decomposed at first, remains exposed to the same re-agent till it is decomposed, thus by the gradual introduction of the true poison, keeping up a continued impression upon the system. The acetate, administered in small doses and long continued, produces the same effects; but there is little danger of those effects following a single dose, however large; for, as it can meet with but a small amount of muriatic acid in the stomach, at any one time, perhaps ordinarily none at all—since it seems to be well ascertained that the gastric juice does not pre-exist in the stomach, in anticipation of food, but is furnished only as its secretion is provoked by the presence of alimentary or other solid substances—but a limited amount, if any, of this salt can be changed into the chloride; less than a sufficient quantity to produce the phenomena in question. The sulphate is both insoluble and undecomposable by muriatic acid, and consequently inert. Sulphuric acid, properly administered, is therefore an infallible prophylactic against the poison of lead; hence, the rational treatment adopted in some of the large manufactories of that article, by drinks acidulated with this acid.

The operation of *mercury* upon the general system may be very satisfactorily explained in the same way. The corrosive sublimate—*bichloride*—when taken in a large dose, acts as a violent irritant poison; but in very small and repeated doses it produces the effects of the mercurial preparations generally. Calomel—protochloride—is totally insoluble; it becomes soluble by uniting with another atom of chlorine from the muriatic acid of the gastric juice, becoming the bichloride, and is then absorbed and acts upon the constitution. But a minute quantity can be thus changed at any one time; hence it is that calomel does not produce the violent symptoms which follow a poisonous dose of the corrosive sublimate; and hence it is too, that the effect of calomel is by no means proportionate to the dose, which fact is of itself presumptive evidence that it does not act by a power properly its own. The blue mass is less efficient than calomel, because in it the metal exists in such a form as requires, for its conversion into the bichloride, two atomic equivalents of chlorine instead of one.

Upon this theory we should expect that the addition of an antacid in medical language, or in chemical language, a stronger base, would, by neutralizing the free acid, materially affect the operation of mercury so combined. Fortunately our logic and the facts of the case agree perfectly; for we find that the *hydrargyrum cum cretâ*, though it contains a rather larger portion of the metal than the last preceding, is still considerably less efficient.

This theory also suggests that, and explains why, the bichloride should be more efficient and more manageable, and therefore preferable, when it is desired to produce a decided constitutional effect, with little disturbance of the digestive organs.

These views, if correct, are of no small practical importance, and with regard to their truth the most critical examination is solicited. The remarks now made in support of them might be much farther extended, but what has been written will serve as well as a longer article, to call the attention of medical men to the subject.

ART. VI.—*Case of Carcinoma of the Stomach, with Remarks.* By Pliny Earle, M.D., Physician to Bloomingdale Asylum for the Insane.

ON the 24th of March, 1838, during my attendance, there entered the Ward of Dr. Louis, in the Hôtel Dieu Hospital, at Paris, V. D., a married woman, 35 years of age, who had had five children. Her menstrual courses commenced at the age of 13 years, and had always returned at regular periods. During pregnancy, she had always been subject to nausea and vomiting, and said that her digestion was very poor during her last pregnancy but one. She was delivered of her last child five and a half months previously, after a painful gestation of seven months. In the intervening period she had vomited occasionally, and been subject to inordinate thirst and diarrhœa. About two months before admission, her thighs and abdomen became tumefied, and she entered the Hospital La Charité, where, after remaining five weeks, the tumefaction entirely disappeared. While in that hospital, she vomited but little. Five or six days before entering the hospital, she threw up, for the first time, a quantity of blackish green fluid. She was frequently annoyed by sourness of the stomach, preceded by pain, and could rest well only upon the left side. She had never received any severe blow in the region of the stomach, and was not accustomed to the use of alcoholic drinks. She suffered occasionally from abdominal pains, became restless, and screamed at times. The stools were liquid. She vomited several times during the night, the matter ejected being a very dark colored liquid, containing mucus.

Present State.—Memory and intellect apparently intact; face pale and emaciated; sight good; pupils slightly dilated; pulse 84, small; tongue white. The respiration is natural under the right clavicle, the only place at which, owing to the decubitus of the patient being on the left side, and pain being caused by motion, it is convenient to examine. The abdomen is voluminous and presents a protuberance, or tumor, on the left side of the median line, in the region of the stomach, and having nearly the form of that organ, though greater than its usual size. It is soft and gurgles upon pressure; its lower border is below the level of the umbilicus. On the right of the median line, midway between this protuberance and the cartilages of the false ribs of the right side, there is another tumor, small, hard, giving a dull sound upon percussion, and gurgling under pressure. The patient feels a sensation like that of hunger, below the xyphoid cartilage. During the examination, she was taken with colic pains in the region of the umbilicus.

Treatment.—Gum syrup; one bottle Vichy water;* an enema containing ten drops of laudanum;† diet—soup.

25th. She has vomited five times since yesterday morning. A portion of the substance rejected, say one-fifteenth, is a dark brown mucus, which is mostly deposited at the bottom of the dish. The small tumor still gives a dull sound upon percussion. Pulse 84; face somewhat jaundiced. Continue treatment, increasing the laudanum to fifteen drops.

26th. Has vomited but once; the substance similar to that of yesterday. Continue treatment, and apply emollient cataplasm to the epigastrium.

27th. Has vomited about two quarts of a transparent liquid, which is of a deep bistre color, and has deposited a quantity of mucus similar to that heretofore mentioned. It is somewhat flocculent. Continue treatment.

28th. Has vomited many times, and thrown up nearly five pints of liquid similar to the last. The rejected Vichy water constitutes a large portion of the liquid vomited.

29th. Nearly three quarts of fluid discharged by vomiting. Occasional pains in the abdomen and region of the stomach continue.

30th. The quantity of matter rejected is about half as great as yesterday, and is much less deeply colored. Face and lips pale; countenance less expressive of pain than heretofore; emaciation progresses; pulse 108, small; tongue moist and white; heat of skin nearly normal. The abdomen is less voluminous, the tumors are less clearly defined, and are nearly resolved into one. This commences one and a half inches below the cartilages of the false ribs of the right side, its borders making two curvatures, the larger of which extends two and a half inches below the umbilicus. It still resembles the stomach in form, but is smaller than the ordinary size of that organ. Its diameter near the right extremity is three and a half inches. A sudden pressure upon it causes a gurgling within. Continue treament; regimen—soup, one egg, lentils.

31st. Lancinating pains in the abdomen, succeeding emesis in the night. The substance is much less colored than formerly, and contains undigested food and greyish mucous flocculi. The cataplasm upon the epigastrium is changed every twelfth hour.

4th month (April) 1st. Less pain of abdomen; vomiting as yesterday. Treatment—suppress the gum syrup and give two bottles of Vichy water.

2d. The patient has vomited more than a quart of liquid of the color of coffee much diluted with milk. It contains flocculi and undigested food. The hard part of the tumor is nearly round, the umbilicus being in its centre; the soft portion has acquired about the same volume as when the patient entered the hospital. The gurgling under pressure continues. The tumor retains its position when the patient moves.

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* The Vichy water, so named from the village at the springs whence it is derived, holds in solution, in different proportions, the following substances, viz.: carbonic acid, the sub-carbonates of soda, lime, magnesia and iron; sulphate and hydrochlorate of soda; silex; and a variable quantity of a green "vegeto-animal" matter. It is said to be of great utility in engorgements of the viscera, particularly of the spleen and the liver.

† Ten drops of this laudanum, called *gouttes de Rousseau*, contain about one and a quarter grains of opium.

8th. She has vomited but once during the last three days. The liquid was then colorless. The tumor is now nearly circular, its hard portion being wholly to the left of the median line, and the umbilicus situated just within the right and lower part of its circumference.

13th. No vomiting since the 8th inst.; some pain in the stomach on the 10th. She says she has as many as ten stools every day. The evacuation of last night contained portions of black blood.

16th. No vomiting since the last observation; no acute pain. Agitation of the abdomen produces gurgling in the tumor. Resume the gum syrup.

18th. Vomited last evening, but threw up no dark colored matter. Yesterday at 11 o'clock, A.M., a pain commenced in the left side of the thorax, followed by cough and palpitation of the heart. She had been exposed to a current of air. Pulse, now, 140; tongue white; heat of skin elevated. The left side of the thorax, posteriorly, is less sonorous than the right, upon percussion. The respiration is feeble, remote and obscure, with slight resonance of the voice, and no ronchus. Treatment—diet, with quince syrup; cut cups over the painful part of thorax, followed by an emollient poultice.

20th. No vomiting since the last notes. Pulse 120; tongue moist and white. Sputa not abundant; a portion of it is orange colored. Treatment—diet, syrup of quinces. An enema of infusion of capsules of the white poppy.

21st. Pulse 140, small; sputa not colored, slightly airy. No pain in the left thorax. Posteriorly, on this side, the sound is obscure upon percussion in the inferior half. The respiration is dry, with some bronchophony, and trembling of the voice. Apply a diachylon plaster to the left thorax, behind. Died at 9 o'clock P.M.

Autopsy.—Forty hours after death. No rigidity of limbs; body and limbs much emaciated, and very pale. The inferior limbs are œdematous, the left more so than the right. A citrine serosity issues from incisions made through the integuments.

Abdomen.—A very slight effusion into the cavity of the peritoneum. The *stomach, in situ,* appears white as ivory, smooth and polished. It is hard to the touch, and evidently considerably enlarged. The small curvature is adherent to the liver, by cellular tissue unequal in thickness, and containing plates of semi-transparent, flat and confluent granulations. The parietes of the stomach are cut with much more difficulty than is usual. They are of ordinary thickness in the great cul de sac, but hypertrophied in the opposite extremity. The portion not diseased, including the cul de sac, and a portion of the large curvature, contains some red, punctillated spots in the mucous membrane. The diseased section, including most of the small curvature, and the pyloric region, is surrounded by an elevated border, a quarter of an inch in height. The included portion is hypertrophied, being the most so near the pylorus, where it is one inch in thickness. The substance of the diseased part is yellowish, brilliant upon section, and contains red striæ. It has the consistence of a hard jelly at its surface, but grows harder as the muscular coat is approached. One and a half inches from the pylorus are several semi-opaque points, like granulations. They are brilliant upon section, and do not extend into the muscular coat. In the line of the small curvature the hypertrophy is less, and the color is grey instead of yellow. The muscular coat is beneath the substance described; it is from one to one and a half lines in thickness, and preserves its normal character in most places. Between it and the diseased mass the cellular tissue is in some places visible, but not where the hypertrophy is greatest. The intermuscular cellular tissue appears hardened and cries under the scalpel, in some places, but does not impart a cellular appearance to the muscular tunic.

Some of the mesenteric glands are hypertrophied, pale and lardaceous.

The peritoneal surface, on both the viscera and the abdominal parietes, is clothed, in a great number of places, with numerous small patches of a greyish, transparent, false membrane. Some of these are isolated, others confluent, particularly towards the inferior portions of the cavity. They are strongly adherent to the peritoneum, but are developed entirely upon its surface; some may be elevated without lacerating it; others cannot. The peritoneum appears to be thicker where the membranes are the most conglomerate; this is owing to the existence of a continuous false membrane, within or upon which the smaller ones are developed. The whole peritoneal surface of the bladder is covered with a false membrane of this kind, upon which the small membranes are confluent.

Liver.—Dimensions: 7 inches long, 7 inches wide on right lobe, and 2½ inches thick. It has a yellowish tinge externally, with some spots perfectly yellow. Internally, greyish; does not grease the scalpel; the vessels contain but little blood. At the anterior border of the right lobe there is a large yellow spot extending a quarter of an inch in depth. The tissue appears, in this place, to be unchanged otherwise than in color.

Spleen.—Its several diameters are 5, 3, and 8 inches. 1 inch, respectively. It has a large number of small, whitish granulations upon its surface.

Small Intestines.—The space occupied by the valvular conniventes contains a quantity of yellowish mucus. The mucous membrane is of a greyish tint and contains some arborisations, but is, apparently, neither thickened nor softened.

Cæcum.—The internal surface is of a deep, and somewhat livid, red color. The mucous membrane is generally softened and thickened, but is nearly destroyed in many places. The deep color terminates about midway of the ascending colon. The remainder of the internal surface is greyish, with some arborescent spots.

Thorax.—Left lung.—Adherent on the lateral portion of the superior lobe, and the anterior inferior portion of the lower lobe. The two lobes are partially adherent to each other. The lung floats in water, the lower lobe sinking, however, much deeper than the upper lobe. The former is very dense, as well as the posterior portion of the latter. The lower lobe, upon section, is of a uniform grey color, interspersed with small black points. A grey, spumous mucosity exudes upon pressure, and the finger penetrates the tissue with sufficient ease. No trace of tubercles.

The right lung adheres laterally and posteriorly, but less than the left lung, and contains a small, cretaceous deposition near the surface of the lower lobe.

Heart.—The heart is 3 inches in length, and the parietes anormally thin. The right ventricle contains a small, membraniform clot, interwoven with the columnæ carneæ.

Brain.—There is no effusion into the lateral ventricles, and the medullary matter is not punctated with blood.

The above is a case of cancer of the stomach of perhaps medium severity, whether we regard the intensity of symptoms or the extent of pathological changes. In its diagnosis, at the time of the entrance of the patient into the hospital, there was but little difficulty. The existence of the tumors in the epigastrium, the larger of which simulated the form of the stomach, together with the gurgling upon pressure, and the almost daily vomiting, rendered it nearly impossible that the true nature of the disease should be mistaken. This is generally true of all those cases in which the cancer has obtained a sufficient development to be sensible upon the external surface of the abdomen. On the contrary, when the cancer is still so small as not to be detected by either the sight or the touch, the diagnosis becomes more difficult, though, as a general rule, it may be arrived at with a very good degree of certainty. Still there are cases, and particularly some of those in which the small curvature of the stomach is the seat of the affection, in which it is impossible to decide positively upon the nature of the lesion. Bouillaud relates a case in point. " A woman, advanced in years, but presenting all the attributes of perfect health, died at the Cochin hospital (Paris), from the effects of a fracture of the neck of the femur. Upon opening the body we were not a little surprised to find four cancerous vegetations upon the posterior face of the stomach, not very remote from the pylorus, but offering no obstruction to that orifice."*

The affection most frequently resembling cancer of the stomach, and perhaps the only one the symptoms of which are not sufficiently pathognomic to prevent a mistake of the one for the other, is chronic irritation or inflammation of the gastric mucous membrane. Some authors have considered lancinating pains in the stomach as characteristic of cancer. With these, the patient whose case is here reported was sufficiently troubled. Andral, however, says that they are rarely an attendant of the disease; that in the cases which have come under his observation, some had no pain, others merely a sensation of weight in the epigastrium, and many were free from pain excepting after their meals. Moreover, he has seen some cases of extensive ulcerations of the stomach, in which the only symptoms were anorexia and a slight pain after eating. The same author, after having compared the characters and intensity of the pain in the two diseases, the divers disorders of digestion which accompany them, the nature of the matter ejected by emesis, and the general or sympathetic symptoms, concludes that, "aside from the cases in which a tumor is felt through the abdominal parietes, no positive sign exists by which to distinguish that which is called in ordinary medical language, a cancer of the stomach, from that which is named chronic gastritis."†

Of the symptoms usually attendant upon this affection, but to which we have not previously alluded, this patient had yellowness of the skin, emaciation, and sourness of the stomach.

From the existence of the small, hard tumor upon the right of the other, and subsequently merged therein, and from the length of time which usually elapsed between the taking of food and the occurrence of vomiting, the inference was almost necessary that the pyloric region was the seat of the disease. Had the vicinity of the cardia, and especially that portion of it immediately surrounding the orifice of the œsophagus, been involved, the emesis would, undoubtedly, have immediately followed the act of swallowing.

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* Dictionnaire de Médecine et de Chirurgie Pratique. Art. Cancer.

† Clinique Médicale.

The prognosis in this case was necessarily unfavorable, though the patient might have lingered some time longer had it not been for the supervention of the pneumonia. Bouillaud says, " I know not that a single case of cure of a well-characterized cancer of the stomach has ever been published." In its treatment, nearly the whole of the long catalogue of medicaments tried in cancer of other parts of the body have been administered.

The author just quoted, assuming as a fact established by his former argument, that the affection is invariably the result of chronic irritation of the gastric mucous membrane, a conclusion which conflicts with the opinion of Andral, Louis, Bayle and Cayol, recommends local depletion, internal emollients, and a rigid diet, as the means most likely to effect a cure. Purgatives and emetics he declares to be " veritable poisons." Abstinence from alcoholic drinks, a milk diet, saponaceous pills and the use of some mineral waters, particularly those of Vichy and Plombières,* as beverages, are strongly recommended. This medication may retard the progress of the disease, if it do not entirely remove it. Dr. Recamier, of Paris, says he has cured some cases by compression.

If gastric scirrhus cannot be cured, its development may be prevented by avoiding or abstaining from its exciting or determining causes. Among these are, habitual excess in eating, the too free and frequent use of spirituous liquors, blows or prolonged pressure upon the epigastrium, depressing passions, and finally, anything which may determine an irritation of the mucous membrane of the stomach. To none of those which are here definitely specified, if we believe the testimony of the patient, could the present case be traced.

The stomach, in this case, as is seen by the notes upon the autopsy, was dilated as well as hypertrophied. Such a condition of the organ is not uncommon, though not very frequent in this disease. Of eight cases, the pathological appearances of which are detailed by Bouillaud, in one only was the stomach anormally distended. Andral reports a case, in which the stomach was so enormously enlarged as to cover the whole mass of the abdominal viscera, and even to touch the os pubis. This dilatation undoubtedly originates in a mechanical cause. It is believed never to occur except in those cases in which the pylorus is contracted. When that orifice becomes diminished, the free passage of the chyme into the duodenum is prevented, it accumulates in the stomach, and, together with the gas which is generated therein, exerts a powerful influence in enlarging the dimensions of the organ.

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* The water of Plombières, like that of Vichy, receives its name from the village located at the springs whence it is derived It contains the sub-carbonate and the sulphate of soda, silex, hydro-chlorate of soda, carbonate of lime, and a large quantity of " vegeto-animal " matter which gives to the water an unctuous appearance. The water is useful in engorgements of the abdominal viscera and in chronic affections of the skin.

In this disease, the mucous membrane of the stomach may be found either in a normal condition or a state of simple hyperæmia, it may be softened, hardened, hypertrophied, atrophied, or ulcerated, and, in a limited space, entirely destroyed. In the case before us, it was reduced to a mere pulp upon the whole of the affected part. In Bouillaud's eight cases, there was a general softening of the membrane in six, and a destruction of it in some places by ulceration, in two. When ulcerated, the other tunics of the stomach are generally destroyed, and in some cases, the partially digested aliment has been thrown through the opening into the cavity of the peritoneum, or, from a simultaneous ulceration of the diaphragm, or the colon even into the latter viscus, or into the cavity of the thorax. Generally, however, the vix medicatrix naturæ takes the precaution to guard against an exigency of this kind. The external borders of the ulcerated portion throw out coagulable lymph, by which adhesions are formed between them and the pancreas, spleen, or other adjacent organs, the parietes of which supply the place of that part of the stomach which is destroyed.* The ulceration sometimes extends into the liver or the spleen.

The cellular tissue, subjacent to the mucous membrane, is generally the seat of schirrus of the stomach, the disease being, indeed, nothing more nor less than a hypertrophy of that tissue. It becomes thickened throughout a greater or less extent of surface, opaque, of a pearly or ivory white, and traversed by apparently but few blood-vessels. Such was the condition of a large portion of it in the case before us.† In many cases, however, in which the disease advances, this tissue becomes more vascular, is divided into lobulæ, excavated, forming caverns, and at length secretes a morbid matter of a liquid or gelatinous consistence.

The belief of Bouillaud, that hypertrophy of the sub-cellular tissue of the stomach arises from chronic inflammation, or "irritation" of the mucous membrane which covers it, has already been remarked. Andral, in his Anatomie Pathologique, observes that such is its origin "in the greatest number of cases." In the case here reported, Louis, finding no traces of such inflammation or "irritation," did not believe that it had ever existed. He offered, also, a plausible argument in favor of the opinion that such "irritation" is not the most frequent cause of the disease. This was, that while cancer, in point of frequency, occupies, firstly, the pyloric region; secondly, the small curvature; and lastly, the great curvature; inflammation has its seat in those regions *in precisely the inverse ratio.*

The intermuscular cellular tissue of the muscular tunic of the stomach occasionally becomes hypertrophied, simultaneously with the cellular coat itself. The former tunic then assumes a cellulated or areolar aspect, or if further advanced, increases so greatly as to force asunder the muscular fibres and scatter them in distances more or less remote from each other, according to the extent of the anormal development. Neither of these states existed in the present case, although the cellular tissue in question was sufficiently hardened to creak under the scalpel. The muscular fibre itself may become hypertrophied. This lesion is much more frequent in the vicinity of the pylorus than in any other region of the stomach. Dr. René Prus considers the frequent vomiting in gastritis to be a powerfully exciting cause of this affection. The fact of the more frequent occurrence of the lesion near the pylorus may, perhaps, be accounted for in the greater motion of that region in the physiological condition of the organ.

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* One of the cases reported by Bouillaud is of this description.

† A similar pathological state of the sub-cellular tissue occurs in the large intestines in some cases of chronic diarrhœa, beneath the skin, in the vicinity of chronic ulcers, and between the pulmonary lobulæ in some affections of the lungs of long standing.—Andral.—*Précis d'Anatomie Pathologique.*

Finally, the cellular tissue intervening between the muscular and peritoneal coats may become hypertrophied, in connection with either or all of those heretofore mentioned. In the case here reported, this lesion did not exist. The blood-vessels may become dilated, either with or without hypertrophy, or they may be inflamed, as in two cases of gastric phlebitis reported by Andral. From excessive dilatation, a rupture may supervene and give rise to hematemesis. The dark-colored matter rejected in the case reported could not have arisen from such a cause. It was, undoubtedly, an anormal secretion of the mucous follicles, or of the cellular tissue, with, perhaps, a slight effusion of blood from the capillary vessels of the tissues affected. The blood in the stools undoubtedly came from the mucous membranes of the large intestines. Louis remarks that the description of vomit which occurred in this case is "*almost* pathognomic of an organic lesion of the stomach." Inasmuch, however, as it occurs in more than one disease, it cannot be considered as pathognomic of either.

Some of the lymphatic glands were enlarged and softened in this case. This lesion is almost invariably attendant upon affections of this kind—more frequently so in the glands of the mesentery than in those which are in the more immediate vicinity of the stomach. Dr. René Prus reports a case in which the right œsophagian cord of the pneumogastric nerve was hypertrophied at its lowest extremity to twice its usual dimensions.

Carcinoma of the stomach is more frequently situated near the pylorus than in any other section of the stomach; the small curvature ranks next in its liability to the disease, while the cardiac region is less so than either. No special cause for this preference of position, by the affection, is mentioned by writers on the subject, other than the predominance of cellular tissue in those parts most frequently affected. Of thirteen cases collected by Louis, seven were in the vicinity of the pylorus, five in the small curvature, and one in the cardiac region. Of Bouillaud's eight cases, five were near the pylorus, two in the small curvature, and one in the cardiac region. Andral remarks that he knows of no case of hypertrophy of the cellular tissue in the great cul de sac.

The duration of the disease is various; in this case it is probable, from what could be gleaned from the patient, that it had existed as much as eleven months. Louis mentions two cases which terminated fatally at the expiration of four months from the time at which they were first detected. In these the disease was seated at the cardiac orifice, or in the small curvature, not very remote therefrom. It is not uncommon, according to the same authority, for those in the pyloric region to continue fifteen months and more. Indeed, he reports a case of ten years standing. At several different periods the patient vomited a dark-colored fluid, having, at the same time, a tumor in the epigastrium. During the last three years, however, although the tumor remains, there has been no recurrence of the emesis.

The patient whose case we have reported was at the age in which cancer of the stomach begins to be more frequent than in earlier life. The disease is rare previously to the age of thirty, and subsequently to that of seventy. Its period of greatest frequency is from thirty-five to seventy. Andral, however, mentions a case in a young man but nineteen years of age, and another in a gentleman of seventy-nine.

The false membranes formed upon the peritoneum in this case were undoubtedly developed consecutively to an inflammation of that membrane, one of the sequelæ of which was the ascites of which the patient was cured at La Charité.

ART. VII.—*Case of Ligature of the Left Subclavian Artery within the Scalenus Muscle, for Aneurism.* By J. KEARNY RODGERS, M.D., Surgeon to the New York Hospital, and to the New York Eye Infirmary, &c., &c.

MICHAEL LARMAN, born in Germany, aged 42 years, was admitted under my care, into the New York Hospital, Sept. 13th, 1845, with aneurism of the left subclavian artery. The account he gives of it is as follows:—

"About four weeks ago, when carrying a basket of peaches (containing about a bushel) on his left shoulder, he was suddenly seized with a severe pain in the shoulder and arm, and was obliged to lay down the basket. On examining the part, he then, for the first time, observed a swelling above the clavicle, about the size of a pullet's egg. Since last winter, about February, he had suffered pain in the arm, and observed that it was occasionally swollen, but was not obliged to give up work."

On examination, a pulsating tumor can be seen above the left clavicle, about the size of a small hen's egg, rising beyond the bone about two inches; extending externally to the outer third of the clavicle, and internally, covered by the outer edge of the sterno-mastoid muscle. Pulsation was very distinct over the entire surface of the tumor. The cutaneous veins below the sternal end of the clavicle very much enlarged and their coats thickened. There were marks of cupping over the shoulder.

The patient complains of severe pain in the axilla, extending down the arm to the finger ends. He cannot sleep, and his general health has suffered from the want of rest, being obliged to walk his room at night on account of the severe pain; the left arm and hand are swollen, so as to interfere with the flexion of the fingers.

There was no perceptible difference in the pulse at the wrists. Its beat was 92, soft and full.

Treatment.—Low diet, and an anodyne at bed time.

Sept. 15th. The pain continuing, he was ordered to be bled to ℥x. Haust. anod.

Sept. 16th. Bleeding afforded some relief. Slept well last night; has less pain in the arm; pulse full and soft; tongue is slightly coated; bowels constipated. ℞. Pulv. Rhei gr. xv., calom. gr. v., M. Sumat æqua cras mane.

Sept. 17th. Ordered tinct. digital. gutt. xxx., ter in die.

Sept. 28th. Has continued the use of digitalis since last date without much benefit. Tumor is increasing in size. Pain last night was very severe; pulse 90, and full, but easily compressed. Fiat v.s. ad ℥xij. ℞. Tinct. opii gtt. lx hora somni.

A consultation of the surgeons being called, they, after a full discussion of the case, very kindly left it with me to decide whether the operation should be performed.

The tumor continued slowly and gradually to increase, and passed more under the mastoid muscle than on his admission, so as to give me some apprehension of trouble from it in the operation.

He was apprised of the fatal nature of the disease, and the dangers of an operation, but his sufferings were so great that he expressed his willingness to undergo whatever operation afforded the least prospect of relief from pain, and of restoration to health.

Having decided on tying the subclavian artery, I summoned my colleagues on the 14th of October, and the operation was performed in the theatre of the hospital at 1 P.M. of that day, in the presence of Drs. Mott and Stevens, consulting surgeons, of Drs. Cheesman, Post, Hoffman, Buck, and Watson, surgeons, and an assemblage of about three hundred physicians and students.

The patient was laid on a low bed, with his head and shoulders raised, and his face turned to the right side. The light from the dome shone directly on the part to be operated on.

An incision was made three inches and a half in length on the inner edge of the mastoid, terminating at the sternum, and dividing the integuments and platysma myoides. This was met by another extending along the sternal extremity of the clavicle, about two and a half inches. This last incision divided a plexus of varicose veins passing in the integuments, covering the clavicle to the subclavian. Free bleeding taking place from their cut and patulous extremities, it became necessary to check it by ligature.

The flap of integuments and platysma myoides was now dissected up, and the lower end of the mastoid laid bare; a director was passed under this muscle, and the sternal portion and half of the clavicular divided by the bistoury. This muscle was now turned up, and the sterno-hyoideus muscle, the omo-hyoideus, and the deep-seated jugular vein were seen covered by the fascia.

On turning up the mastoid, a portion of the aneurismal sac strongly pulsating was brought into view, overlapping about half the width of the scalenus, forming now the outer part of the track through which I was to pass, showing fearfully one of the dangers of the operation, which, from my previous examinations of the part, I had of course anticipated.

The fascia being divided by the handle of the scalpel and the fingers, I passed in contact with the deep jugular on its outer side to the inner edge of the scalenus anticus, intending, for the purpose of avoiding as much as possible all danger to the thoracic duct, to reach this muscle fully half an inch above the rib, rather than at its insertion. I now felt distinctly the phrenic nerve running down on the anterior surface of the scalenus, and was confident that I should be able to avoid any injury to it. Having attained the inner edge of the scalenus, by pressing downwards with the finger, I soon discovered the rib, and after some little search easily found the subclavian artery. By pressing it against the rib, all pulsation ceased in the tumor, and by removing the finger, pulsation returned.

I now felt that great care was necessary to detach the artery, and avoid danger to the pleura and thoracic duct. In accomplishing this part of the operation, I at first tried Sir Philip Crampton's instrument, but ascertaining that I could better carry the ligature around the artery and bring up its end, by the invention of Drs. Parrish, Hewson, and Hartshorne, of Philadelphia (long since given to the profession by them, and lately claimed by Mr. L'Estrange of Dublin), I accordingly adopted that instrument.

This part of the operation it will be imagined was not very readily accomplished. The great depth of the vessel (nearly the length of my forefinger), and narrowness of the wound, prevented a very easy management of instruments. The point was introduced under the artery, and soon directed upwards so as to avoid injury to the pleura. The needle carrying the ligature was now detached from the shaft of the instrument, and drawn upwards so as to include the artery. I readily tied the ligature, and tightened it with the forefingers in the bottom of the wound. All pulsation immediately ceased in the aneurism and the arteries of the extremity.

The patient complained of no pain or unusual feeling in the head, as might have been expected from so suddenly changing the current of so large a quantity of blood.

2 o'clock P.M.—Patient complains of chilliness; surface of the body cool to the touch; temperature of the left arm much below that of the right; pulse 115, small and feeble. Ordered warm brandy and water; bottles of warm water to the feet, and the left arm and shoulder to be enveloped in warm blankets. 5 P.M. Feels more comfortable; pulse 108, with some degree of fulness; temperature of the arm increased; complains of severe pain in the back and neck; is unable to lie down, and has his shoulders supported in a bed-chair. 10 P.M. Has slept two hours, and is now quite easy. Took of tinct. opii i ʒ.

2d day. *Oct.* 15*th.*—7 A.M. Passed a comfortable night and slept well; has less pain in his back; temperature of left arm higher than that of right; pulse 120, soft and full; has taken no nourishment; to take barley water as his drink. 3 P.M. Is very comfortable; has no pain in his back; complains of slight pain in his head and neck; is inclined to sleep. 11 P.M. Patient restless; complains of pain in the wound and neck. ℞. Solut. sulph. morph. (Magendie's) gtt. xxv.

3d day. *Oct.* 16*th.*—7 A.M. Slept but little during the night; suffered severe pain in the neck and down the back; skin moist; temperature of both arms the same; pulse 112, soft and full; complains of thirst; tongue coated with a white fur; bowels not open since the operation; there is a slight erysipelatous redness at the edges of the wound. Ordered purgative enema; the inflamed part to be bathed with equal parts of spirits and water. 5 P.M. The patient refusing to allow the administration of an enema, a dose of castor oil was exhibited, which operated freely; expresses himself much relieved; has less pain in the neck; temperature of the left arm natural; skin rather dry; pulse 120, without much force; complains of thirst; erysipelas extending; the wash to be continued. ℞. Solut. sulph. morph. gtt. xxx., hora somni sumend.

4th day. *Oct.* 17*th.*—6 A.M. Passed a good night, slept till past midnight; is free from pain; skin warm and moist; pulse 98, soft and full. Diet: milk toast for breakfast, chicken broth for dinner. Continue the wash. 5 P.M. Erysipelas extending downward; has slight pain in the wound; pulse 120, soft and regular; temperature of the left arm same as that of the body; skin dry; v. s. ad ℥x.; solut. sulph. morph. gtt. xxv., hora somni.

5th day. *Oct.* 18*th.*—7 A.M. Passed a comfortable night; slept well; has no pain; general symptoms much improved; pulse 108 and soft, but not full; erysipelas fading; wound suppurating at the angle; diet as yesterday; continue wash. 5 P.M. Bowels moved spontaneously this morning; is free from pain; pulse 110, and easily compressed; skin moist; tongue slightly coated. ℞. Tinct. lupulin, ʒij., hora somni.

6th day. *Oct.* 19*th.*—6 A.M. Passed a restless night; was slightly delirious, but is more quiet this morning; pulse 120, quick and feeble; tongue coated; skin dry; complains of dryness of throat; erysipelas diminishing; wound suppurating; its sutures were removed; was allowed lemonade as a drink; diet as before; poultice to the wound. 5 P.M. Patient more comfortable; skin moist; pulse 118, with more volume; less thirst; poultice to be continued.

7th day. *Oct.* 20*th.*—6 A.M. Passed a comfortable night; slept until midnight; complains of the weight of the poultice; is free from pain; wound suppurating freely; pulse 120, small and easily compressed; tongue coated; skin moist; temperature of arms the same; has some difficulty in voiding urine, which he attributes to the attempt to administer an enema some days since; bowels moved yesterday; diet as before; poultice to wound. 5 P.M. Bowels moved to-day; feels very easy; solut. morph. gutt. xx., h. s.

8th day. *Oct.* 21*st.*—6 A.M. Slept from midnight till morning; is now quiet and easy; skin natural; no erysipelatous appearance, except on the edges of the wound; pulse 108, irregular in force, but not in frequency; tongue clean; appetite good. Ordered boiled chicken for dinner.

9th day. *Oct.* 22*d.*—Continues to improve; slept well; pulse 104, soft and regular; tongue slightly coated; skin moist; wound doing well, and suppurating freely; erysipelas subsided entirely. No change in treatment.

10th day. *Oct.* 23*d.*—6 A.M. Passed a good night, with the exception of an occasional inclination to cough; pulse 120, and regular, but without much force; skin dry; countenance slightly flushed; complains of thirst; has flashes of light before his eyes; pupil of left contracted; is without pain in the head; wound suppurating freely; drink, barley water; h. pulv. Dov., gr. x. 5 P.M. Feels much better; skin moist; has less thirst; pulse 108, soft and full; less cough; bowels have moved twice spontaneously; h. tinct. hyosciam. ʒj., hora somni.

11th day. *Oct.* 24*th.*—7 A.M. Slept well last night; was not disturbed by the cough; pulse 102, and without much force; skin moist; tongue clean; countenance cheerful; wound suppurating freely; tumor diminishing; appetite good; diet, same as yesterday, with the addition of an egg for breakfast. 5 P.M. The recumbent position is very irksome, and it is difficult to keep him in bed, from which he has frequently risen. Feels very well; pulse 96, soft and full, is easily compressed; skin natural; tongue clean. The contraction of left pupil still continues, and there is slight ptosis of left eye-lid; has an occasional burning sensation in the left arm, which is relieved by pressure on the elbow; bowels moved once to-day, but not freely; has no difficulty in micturition; wound looks well; discharge diminishing; h. solut. sulph. morph., gutt. x., hora somni.

12th day. *Oct.* 25*th.*—6 A.M. Slept well last night; pulse 94, full, but easily compressed; skin moist; tongue clean; wound granulating;

appetite good; diet, same as yesterday. 5 P.M. Wound was dressed this morning with adhesive plaster and dry lint; has occasional pain over the left eye; ptosis and contraction of pupil continues; pulse 92, soft and full; skin moist; no pain in left arm.

13th day. *Oct. 26th.*—2 A.M. The patient, on changing his position from the right side to his back, felt a trickling down his chest of what he supposed was matter, but which the nurse ascertained to be blood. The house surgeon was immediately called, and controlled the hemorrhage by filling the wound with layers of dry hard sponge, placing a compress over this, and securing the whole by a bandage. About twenty ounces of blood were lost. 9 A.M. There has been no bleeding since 2 o'clock. The patient has a sensation of faintness, and is alarmed at his situation. Pulse 128, small and feeble; skin dry and cool; countenance pale and anxious; ptosis and irregular contraction of the left pupil still continue, but the pain in the head has subsided; has an inclination to sleep, but the fear of bleeding prevents its indulgence. Has taken a small quantity of milk, and desires more solid food; thirst not very great. Ordered oyster soup. 12 o'clock, M. After patient had been raised for the purpose of drinking, the hemorrhage again occurred. On removing the bandage and compresses, which were saturated with blood, the hemorrhage continued in distinct jets from the sponge—another piece was placed over the whole, and firm pressure ordered to be kept up by assistants, which controlled the bleeding. The ligature still remains in the wound. 5 P.M. There has been no recurrence of hemorrhage; reaction has taken place; pulse 140, sharp and quick; skin hot and dry; countenance flushed and anxious; has pain in the forehead; complains of great thirst; drinks freely of cold water; pressure continued.

14th day. *Oct. 27th.*—6 A.M. There has been no bleeding during the night; pressure has been firmly made over the wound; the blood has passed under the integuments of the neck in so great quantity that there is a decided bulging of the skin on the left side, extending to the back of the shoulder; pulse 140 and very feeble; skin clammy; countenance pale and anxious; right pupil very much dilated, left contracted; ptosis of left increased; complains of pain in swallowing; thirst very great; has taken very little nourishment; ordered chicken soup. 5 P.M. Patient's strength gradually failing; no external hemorrhage; pulse 140, and feeble; general symptoms but little changed since morning.

15th day. *Oct. 28th.*—6 A.M. Patient has been very restless during the night, but slept at intervals; complains of the pain caused by pressure on the wound; has occasionally drunk lemonade; during the night there was some disposition to cough, which was twice followed by oozing; pulse 142, and very feeble; countenance of a livid hue; right pupil very much dilated; ptosis and contraction of left pupil continue; swelling on side and back of the neck very prominent; skin cold and clammy; mouth parched, is unable to swallow anything but cold water. On removing the outer sponge there is a firm clot seen which for a time controls the bleeding, but the least effort causes a free gush of blood; gentle pressure to be continued. 1 P.M. The clot beneath the integuments causes so much pressure on the œsophagus as nearly to prevent deglutition; the tendency to external hemorrhage is less, and the external clot firm; there is danger that the blood effused may press on the larynx sufficiently to prevent respiration, and the pressure was accordingly discontinued; oozing continues. 5 P.M. Patient dying; no external hemorrhage. 5¼. Died.

Post-mortem Examination, eighteen hours after Death.—The wound was filled with coagula and sponge, which had been introduced for the purpose of making pressure. The blood is already in a state of partial decomposition. The dissection was carefully performed, exposing the different layers of muscles. The lower incisions made at the operation were found to include three-fourths of the mastoid, leaving a small portion of the clavicular portion undivided. Below this the aneurismal sac and the scalenus anticus formed the outer and posterior wall of the wound. The inner wall was formed of condensed cellular tissue covering the carotid artery, jugular vein, thoracic duct, and the edges of the thyroid muscle. At the bottom was the subclavian artery, completely divided by the ligature, which was found free in the coagula. The cellular tissue of all the parts around the wound was condensed by adhesive inflammation, rendering the dissection exceedingly tedious and difficult. The jugular vein, which skirted the inner wall of the wound, was obliterated and filled with fibrinous coagula. Opposite the track of the ligature the vein was contracted to a cord, and impervious as far as its junction with the subclavian. The vena innominata and subclavian were normal. The pleura at the bottom of the wound presented a large irregular lacerated opening, communicating from the wound with the left pleural cavity, which was filled with coagulated blood. This formed one large uniform coagulum, and had every appearance of being of rapid and recent formation; the membrane around these was thickened. On exposing and tracing the subclavian artery, it was found that the ligature had been applied about one and a quarter inches from its origin at the aorta, and immediately at the root of the vertebral, on its cardiac side. The artery had been completely divided by the ligature, which as mentioned above was found loose in the wound. The stump of the subclavian, between the aorta and ligature, presented the appearance of a round solid cord, about an inch and a quarter long, and impervious to liquids or air. The external coat of the stump was thickened and adherent near the ligature to the surrounding tissues, by adhesive inflammation. On laying open the vessel longitudinally it was found that a firm fibrinous coagulum occupied the vessel, and was adherent firmly to its inner coat for three quarters of an inch; near the aorta, the coagulum was softer. The coats of the vessel were moderately thickened, and presenting a small patch of atheromatous deposit about the third of an inch from the tied end. Around this deposit the adhesion seemed as perfect as at any other part. Beyond, the ligature presented a different appearance. No plug other than a soft coagulum of blood occupied its cavity, and it presented much less evidence of adhesive inflammatory process in its coats. The vertebral was given off immediately at the point of ligature, and was open, containing a thin blood coagulum like the one in the subclavian. These were drawn out with ease, and evidently had formed during the last moments of life. About one third of an inch from the vertebral came off the thyroid axis, and nearly opposite the vertebral was the internal mammary. These vessels were all patulous and healthy. About half an inch from the thyroid axis commenced the dilatation of the artery to form the aneurismal sac. This tumor was about the size of a small orange, and had involved in its growth part of the scalenus anticus, the cervical nerves going to form the cervical plexus, the surrounding cellular tissue, and the glands. The aneurism was completely blocked up with coagula, and the axillary artery which emerged from its distal side was plugged with a fibrinous clot exactly similar to the one in the stump of the subclavian, though perhaps not so perfect. It appeared sufficiently so, however, to obliterate entirely the calibre of the vessel. The plug extended some distance down the axillary artery. The thoracic duct, which had been injected with wax from the abdomen, was found uninjured. The aorta was thickened, and its coats irregular from a considerable deposit of atheromatous matter in its tissues. The heart was somewhat larger than natural, but apparently sound. The other organs were not examined, as the friends insisted on an early removal of the body for burial.

Although a decided majority of the consultation agreed as to the propriety of the operation of securing the artery for aneurism, still, as my colleagues kindly left it with me to decide whether it should be undertaken, I felt it incumbent on me to investigate the subject with great care, and accordingly gave it my most sedulous attention. I was the more anxious, because, in the only case in which the attempt had been made by Sir Astley Cooper, in 1809, that eminent surgeon failed of securing the vessel, and is said to have entertained apprehensions that he had wounded the thoracic duct.

I had always considered it as a perfectly justifiable operation, and one that a careful surgeon conversant with anatomy could accomplish, if the tumor were of moderate size.

The want of success in the four or five operations on the right subclavian in its first stage did not discourage me, nor did they alter my opinion. The difference in the anatomy of the right and left arteries was so very great, that I did not consider it fair to argue that a similar result was to follow on the left side. The greater depth of the left, indeed, rendered the operation more formidable, but if accomplished, not less likely to succeed.

The point where the ligature must necessarily be applied on the right side is but a quarter or at most half an inch from the innominata and the coming off of the carotid ; so that it could scarcely be expected that a coagulum would form sufficiently firm to adhere to the vessel, and resist the force of the heart's action. Besides, too, the greater force of the circulation on the right side was additionally unfavorable to success on that vessel, and, therefore, is an additional reason for distrusting an argument drawn from a parallel between the two.

In examining anatomical and surgical authorities I found the opinion prevalent among almost all British authors that the operation on the left side was "impracticable."

Colles, the eminent Irish surgeon who first tied the right subclavian in its first stage, says :—

> "This operation, difficult on the right, must be deemed impracticable on the left subclavian. For the great depth from the surface at which this vessel is placed—the direct course which it runs in ascending to the top of the pleura—the sudden descent which it makes from this to sink under the protection of the clavicle, and the danger of including in the same ligature the eighth pair of nerves, the internal jugular vein or the carotid, which all run close to, and nearly parallel with this artery ; these all constitute such a combination of difficulties as must deter the most enterprising surgeon from undertaking this operation on the left side."—*Edinburgh Med. and Surg. Journal, Jan.* 7, 1815, *p.* 23.

Harrison,* Flood,† Guthrie,‡ and Quain,§ all coincide in this opinion.

The opinions of those eminent anatomists and surgeons being so decidedly against the *possibility* of the operation, it was only left for me to examine with great care the surgical anatomy of this vessel.

Having had the thoracic duct injected with wax, I repeatedly dissected the parts concerned, and operated in every way that suggested itself to me as likely to present any advantages. My opinion of its feasibility was thus confirmed, and having never entertained any doubts of its propriety, I accordingly undertook it.

I regret, indeed, deeply, the death of my patient, but the appearances presented on examination after death, have only strengthened the opinion I had previously formed, and have encouraged me to undertake it with some slight variations, should another case ever present itself.

It has often happened with important operations that many of the first cases have been unsuccessful, while the carefully noted observations made on dissection have led to different modes of operating, and more uniform success.

Previously to the performance of this operation many entertained doubts whether the force of the circulation so near the heart in so large a vessel would not prevent the formation of a coagulum, and of course interfere with the obliteration of the vessel.

These doubts have now been removed, and I consider that all reasonable objections fall with them, except those arising from the anatomy.

Danger to the thoracic duct and pleura are in my opinion the most serious of these, for, with ordinary coolness and care, there will be little danger of including the pneumogastric and phrenic nerves, or carotid artery, in the ligature. The veins may be lacerated by great roughness, but can scarcely be included.

The thoracic duct, I think, can almost always be avoided by reaching the inner edge of the scalenus half or three quarters of an inch above its insertion, and then pressing the finger down towards the rib. The duct is thus kept out of the way of laceration by the finger, and afterwards by the aneurismal needle. I am aware that this duct varies in its course, but this direction I am confident will usually secure its safety. By adopting it in the many times I operated and dissected the parts in the dead body, it was uninjured.

The artery lies in contact with the pleura, the laceration of which might be attended with very distressing and dangerous consequences. A careful introduction of the aneurismal needle, and soon turning up its point, will usually secure the safety of this membrane. In none of my operations on the dead body, where it was performed in this way, was it injured.

The hemorrhage in this case came from the distal end of the artery, and the very free and direct anastomosis of the internal carotid at the base of the brain with the vertebral, induce me to think that it was the latter vessel which transmitted the blood. Some indeed may have come through the thyroid axis, but I consider the former mode more direct.

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* Harrison on the Anatomy of the Arteries. Dublin: 1833. Vol. i., p. 125.

† Flood. The Surgical Anatomy of the Arteries. London: 1839. P. 84.

‡ C. J. Guthrie on the Diseases and Injuries of the Arteries, &c. London: 1830. P. 396.

§ Quain's Anatomy, 3d edition. London. P. 492.

Should this operation be repeated, I would suggest the securing of the vertebral, and if possible the thyroid axis, by ligature. The difficulties are indeed thus increased, but not insurmountable.

I present this case to the Profession with the confident hope that they will give it their approval. I do not covet the empty honor of performing for the first time, be it ever so skilfully, any operation, however bold and difficult, but of doing that, which, though once unsuccessful, will, from the knowledge thence derived, enable us to enlarge our sphere of usefulness, and be the means of preserving human life.

My thanks are due to my talented pupil, Dr. John J. Crane, the House Surgeon, for his promptness in attending to all my directions in this case, and to my friend, Dr. Markoe, Curator of the Museum, for his skilful dissection and preparation of the parts.

ART. VIII.—*Reply to Dr. Carnochan's claim to priority in the Division of the Masseter Muscle.* By JOHN W. SCHMIDT, JR., M.D., New York.

To Charles A. Lee, M.D., &c.

SIR,—I am reluctantly compelled in self-defence to reply to a communication by Dr. John Murray Carnochan, which has appeared in the "New York Journal of Medicine," for January, 1846. I am the more averse to this duty I owe myself, having been for a number of years on the most friendly terms with the author of this article, and have always been among the first to award to this gentleman any credit due him, and as I witnessed his operation, the omission on my part of giving a proper notice in my account of the division of the masseter muscle would have been highly censurable; but before publishing my case, I examined every authority, and consulted a mutual friend, Dr. C. A. Porter, who witnessed and assisted in both operations, and he decided that I was the first to divide this muscle. Dr. Mott, who also assisted me in my operation, did me the honor publicly to announce it to his class, as the first operation of the kind he had seen or heard of, and if I mistake not, Dr. Carnochan was present at this announcement. My case was also published before Dr. C. left for Europe.

I would now ask, why were not his claims made known at this time? I will answer; Dr. Carnochan's case terminated unfortunately, and it was my belief that he had intentionally omitted its publication.

It is not my wish that any blame should be attached to Dr. C. on this account, as from the nature of the deformity no other result could have been expected, and not one of the many plans since proposed and enumerated in the heading of Dr. C.'s communication was in any way practicable.

If the Doctor was the first to suggest the division of the masseter muscle, I was certainly the first to practise its entire division, and if I am not greatly mistaken, was also the first who proposed the possibility of an artificial joint after the accidental fracture of the jaw in the use of the lever; for that, however, I do not claim any credit.

Again, from Dr. C.'s own statement it will be seen that he did not divide the muscle subcutaneously, and at any rate it was an entirely different procedure from the one practised by me—an account of which can be seen in the first volume of Velpeau's Surgery, translated by Drs. Mott and Townsend.

I cannot think that any misrepresentation is intended by Dr. Carnochan, but from the lapse of time which has occurred, the particulars of the case must have escaped his recollection. Before writing this I have refreshed my memory by a visit to Dr. C.'s patient, who, I am sorry to say, has not been in the least benefited by the operation, and confirms me the more strongly in the belief that the masseter was not divided.

I cannot but add my conviction that Dr. C. has taken to himself more credit than the merit of the case deserves, and especially as he disclaims any regard to priority.

My attention has been within a few days directed to a case published in the "New York Journal of Medicine," for 1840, where it will be seen that Dr. G. Buck divided a portion of the masseter in August, 1839. I also add a correspondence between Dr. Porter and myself, in relation to the above facts :—

New York, 13th January, 1846.

Dear Sir :—You witnessed and assisted Dr. Carnochan in a case of immobility of the jaw, in a little girl some years since. Will you do me the favor to give me your views, as far as you remember, with regard to the division of the masseter muscle, and the fracture which occurred in the attempt to open the mouth ?

Very truly yours,

J. W. Schmidt, Jr.

Charles A. Porter, M.D., Albany.

Albany, Friday, January 16th, 1846.

Dear Sir :—In reply to your communication of January 13th, received this day, I comply with your request, and give you my views of an operation by Dr. Carnochan for immobility of the jaw. I have not read Dr. C.'s account of the case, which you informed me is published in the New York Journal for January, 1846. I am glad that I have not read it, as I cannot with any justice be suspected of appearing as an interested witness. Certain I am that I have only one wish. It is to subserve truth. I stated at the time,—I cannot, I will not shrink from the statement now,—it was my decided opinion that the parts were such a mass of disease, it would defy even Dr. C., with all his knowledge of anatomy—no one will question his attainment in that department—to tell what was and what was not the masseter muscle. I did not then, I do not now suppose that he divided the masseter muscle ; I certainly cannot think that he did it with premeditation or design. I stated then, I repeat now, that the jaw was fractured accidentally. I should feel deep regret if I supposed this statement could place me in an attitude unfriendly to Dr. Carnochan. I entertain for him no other than most friendly feelings. I have not altered my opinion, that to yourself belongs the credit of having first and successfully divided the masseter muscle.

Very respectfully your friend,

Charles A. Porter.

J. W. Schmidt, Jr., M.D.

Art. IX.—*Menstruation, its True Nature and Office, with a Review of the Evidence of its Vesicular Origin, with Illustrative Cases.* By Samuel S. Purple, M.D., of New York.

Interesting and many are the facts and observations which, within the last few years, have been presented to the profession, upon the history and phenomena of menstruation. The theory of Power—the researches of Girdwood, Jones, Paterson, and Lee (London); Gendrin, Raciborski, and Boismont (Paris); Bischoff (Leipsic); Négrier (Angers), and of many others who are devoted to the cause of science, and improvement of sound physiology, are well worth the perusal of every member of the profession. Dr. Paget, in a "Report on the Progress of Human Anatomy and Physiology, in the year 1842–3,"* has given an excellent summary of the then existing facts relating to this subject, corroborative of Dr. Power's theory. It is not our intention to go into the minute detail of all that has been written in reference to the elucidation of the nature of this function of the female economy. It will, however, be our aim to give, in as concise a manner as possible, a summary account of the facts relating to this subject, with such conclusions as we may be able legitimately to draw from them; and in order to do this successfully, it becomes necessary to inquire first, What is the true nature of the menstrual fluid?

All the more modern elementary treatises on Physiology and Midwifery, agree in describing the menstrual fluid "to consist of blood deprived of its fibrin, the fluid being composed of serum in which red corpuscles are suspended."† This opinion has gained universal currency upon the authority of Brande and Lavagna; at least it would seem to be so, as it does not appear that any such opinions were held previous to the publishing of their views. Mauriceau‡ says that the menstrual fluid "commonly differs in no way from that which continues in a woman's body." J. Hunter terms menstruation, "a natural evacuation of blood * * * thrown off from the common mass by an action of the vessels of the uterus, similar to that of secretion; by which action the blood loses the principle of coagulation, and I suppose life."§

The presence of the unaltered globules of the blood, in the menstrual fluid, is expressly stated by Hunter, who says—"The red globules, however, are not dissolved, they retain their figure."‖ The truth of this remark is fully confirmed by the more recent observations of Dr. Donné,¶ made in the true spirit of inquiry. Donné submitted to careful microscopic examination, healthy menstrual blood obtained from two *healthy* females, and found it to contain, 1st. Common blood globules of the *proper character and form;* 2d. Mucus from the vagina united with epithelial scales; and 3d. Globules of mucus from the cervix uteri. Professor Shultz (Berlin) examined a teaspoonful of menstrual blood, taken from a healthy female, with the like result as to the globules. He describes the globules as separating and falling to the bottom of the fluid, where they appeared "to the naked eye a cheese-like coagulum; observed through the microscope, this apparent coagulum was found to be composed of perfect vesicles, heaped together, yet isolated, and not adherent to each other, as easily happens to the vesicles of living arterial and venous blood."*

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* Brit. and For. Med. Rev., vol. xvii., 1844.

† Carpenter's Principles of Human Physiology, § 742, Müller's Elements of Physiology, Bostock's Elementary System, Majendie, Elliotson, Mayo, &c., &c.

‡ Meckel's Archives, 1818.

§ Hunter on the Blood, 2d Amer. edit., 1823, p. 67.

‖ Ibid., p. 45.

¶ M. Brierre de Boismont, "De la Menstruation," Paris, 1842, where the analyses of a number of observers are given in full with remarks.

From the foregoing remarks, it will be seen that the menstrual fluid consists of serum and the natural corpuscles of the blood. But is the fibrin absent? Let us see. From the result of the numerous experiments made to ascertain the composition of this fluid, we are compelled to believe that there is also present a full quantity of fibrin. M. Bouchardat,† by means of a speculum fitted around the cervix uteri, collected in a pure state a quantity of menstrual blood, and, upon analysing it, found that it was composed of the ordinary ingredients of the blood, combined in arterial proportions; thus confirming the previous observations of Mr. Denis. The interesting researches of J. Müller also show "a full quantity of fibrin." Dr. Dewees,‡ in speaking of the opinion that this fluid contains no fibrin, and hence does not coagulate, says, "It is more probable that this substance (fibrin) has been deprived of the power of coagulating, by being subjected to the influence of the vessels of the secreting portion of the uterus. This opinion is strengthened by recurring to the fact, that the coagulating lymph always accompanies the red globules, wherever the latter may be found." Indeed, we should expect *à priori* the presence of fibrin, for we know of no process or secretion by which the fibrin may be retained, and yet the unchanged globules of the blood be allowed freely to pass. How then are we to account for the want of power to coagulate, which this fluid possesses? (For the occasional instances of coagula, found during deranged menstruation, must be considered exceptions to the general rule; and as J. Hunter says, "if that discharge (the menstrual) is natural and healthy, the blood does not coagulate; but, on the other hand, if the extravasation is not a healthy one, the blood coagulates, as it is extravasated, and comes away in clots."§) Before answering this question, we shall give some of the views which have been put forth to account for this occurrence. Hunter supposed it to depend upon "a natural action of the living body, which *destroys the life of the blood* in the act of extravasation."|| And again, "the blood dies (in this species of ecchymosis) in the act of extravasation, in the *same manner* as the blood of the menstrual discharge, whenever it is effused."¶

It is possible that the opinion of Dr. Dewees (before cited) may have been made up from a review of Mr. Hunter's, as it appears to be but a slight extension of the same views.

M. Retzius believes it to be owing to the presence of phosphoric and lactic acids developed in the uterine vessels. Now it appears to us, and we think we shall be able to show, that Mr. Hunter and M. Retzius have both labored under a mistake in the location of the change. Each places the change in the uterine capillaries: the former supposes an action or property inherent in the vessels to exist, by which the death of the blood is produced in the act of extravasation; and the latter, advancing a step farther, supposes the development or production of an acid, by which a change is effected in the vessels as the process of extravasation goes on.

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* Boismont, edit. cit.

† Ibid.

‡ Treat. on Diseases of Females, Philadelphia, 1840, p. 97.

§ Principles of Surgery, Amer. edit., 1839, p. 35.

|| Ibid.

¶ Hunter on the Blood, edit. cit., p. 161

Now as to the production of phosphoric or lactic acid, it may be said that in the present state of our knowledge no such acids are known to be evolved from the mucous membrane of the uterus or vagina in a healthy state.

When an acid is evolved, excoriation of the parts over which it passes is the result, constituting that form of leucorrhœa mentioned by Thomson, Jones, and Ashwell, requiring alkaline injections. Again, healthy menstrual fluid is alkaline; and again, "healthy mucus from the uterus or vagina," says Prof. Draper, "does not contain an acid." Now, were it fully proved that one or both of these, or any other free acid is present or disengaged from this surface, then any further explanation would be useless, for it is well known that acids produce this effect upon healthy blood,—but as we have shown that the contrary is the case, we are compelled to look further for an explanation or answer to our question.

From repeated experiments and observations it has been found that *ordinary blood mixed with mucus* does not coagulate, and also that a *slow secretion or effusion of blood from a mucous surface does not coagulate.* May we not infer that it is the presence of mucus that prevents the coagulation? Indeed, with these facts before us, can we hesitate for a moment to declare that the secretion and blending of mucus with the extravasated menstrual fluid *is the sole and only cause of the non-coagulation of the menstrual blood* (for we believe it to differ in no way in the act of extravasation from ordinary blood which remains in the body)?

But it may be asked, in what manner is this extravasation of blood brought about, or in other words, what is the cause of the menstrual discharge? In all spontaneous hemorrhages the proximate cause is local hyperæmia, or congestion of the capillaries of the part from which the flow takes place. Now, if what we have said be true, if the menstrual fluid be simply a sanguineous exhalation, and if local hyperæmia be the proximate cause, should we not expect to find this congestion after death? Let us see what the facts in reference to this state are. In all cases where death has taken place during the catamenial flow, the uterus and its appendages have been found congested. Increased vascularity is a characteristic attendant. If during the menstrual flow an examination be made with the speculum, the vagina will be found unusually vascular, the *cervix uteri* swollen and red, the *os tincæ* nearly closed. M. Boismont* "found the *cervix uteri* hot, soft, and tumid to the touch, and on examination with the speculum the *vagina* unusually vascular, the *cervix uteri* enlarged and of a bright red color, differing from its usual pink violet hue—and hence considers it in a state of engorgement."

Dr. Blundell† had an opportunity of observing this in a severe case of *procidentia.* He says, "the increase took place regularly, and the whole womb might distinctly be felt to throb, and hence we may reasonably infer that whatever, month by month, may be the cause of the topical increase of the vascular action in the menstruating vessels, it is the determination of blood on the uterus, produced by this topical excitement of the vessels that gives rise to the discharge." In a recent case where death took place during the catamenial flow (which will be referred to more minutely hereafter), the uterus, one ovary, and its corresponding fallopian tube were found in a high state of engorgement. It may be safely stated, then, that *local hyperæmia of the uterus and its appendages is the proximate cause of menstruation.*

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* Edit. cit.

† Diseases of the Uterus—Waller's Lec., Philadelphia, 1841.

If, then, this be the proximate, it will be asked what is the remote or exciting cause? Here it will be necessary to treat more minutely of what we hastily referred to at the commencement of this paper, viz., the observations of Cruikshank,* Power,† Lee,‡ Jones,§ Girdwood,|| and many other English writers—Gendrin,¶ Bischoff, Raciborski,** Negrier,†† Boismont,‡‡ and a number of other French and German writers, who have done and said much upon this subject, and whose labors prove beyond a reasonable doubt that it is *the periodical maturation and rupture of a graaffian vesicle, with the escape of an ovum* from the ovary into the fallopian tube, which is "washed away by the menstrual blood."

It would augment too much the size of this paper were we to give in full the cases of the writers just referred to; we cannot, however, refrain from giving some of them, with the conclusions drawn therefrom.

It is impossible to say with whom the idea originated that the catamenia were in some way connected with the ovaries—for we find it spoken of by Kirkringius as early as 1672, who believed that ova were discharged with the menstrual fluid, at the first appearance of this function at least. He says, "Aliquando fœminæ dejiciunt hæc ova imprimis temporæ menstruorum." Friend, in his Emmenalogia, alludes to it as a then existing belief. The first case tending to prove or establish this opinion, so far as we have been able to ascertain, is that recorded by Pott,§§ in which he extirpated the ovaries in an operation for inguinal hernia; *the woman, who before had been regular, ceased to menstruate.* Since that time a number of instances have been observed in which the ovaries being absent, this function was not performed. In all the cases on record where these organs were removed, or found absent, the catamenia were also absent, although all the other organs of generation were perfect. The next important case bearing upon this subject was that of Mr. Cruikshank, published in the Transactions of the Royal Society for 1797. "I have (says he) in my possession the uterus and ovaries of a young woman who died with the menses upon her. The external membrane of the ovaries was burst at one place, from whence I suspect an ovum escaped, descended through the tube into the uterus, and was washed away by the menstrual fluid." This case of Mr. Cruikshank's, with the observations of Kirkringius, seems to have been entirely disregarded by writers and observers, as we find nothing farther on this subject until the year 1821 (except the case of Mr. Pears),|||| when Mr. Power put forth his theory of menstruation, which supposes it to depend upon the maturation and rupture of a graaffian vesicle with the escape of an ovum. Whether Mr. Power had his eye upon Mr. Cruikshank's case or not, we are unable to

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* Phil. Trans. for 1797.

† Essays on the Female Economy. London, 1821.

‡ Cyc. Prac. Med., Art. Ovary. London, 1834. Also Lectures on Mid., Am. Edit. Philadelphia, 1844.

§ Practical Observations on Diseases of Women. London, 1839.

|| London Lancet, 1843.

¶ Gendrin, Traité Phil. de Med. Prac. Paris, 1839.

** Gaz. des Hôspitaux, tome 4. 1842.

†† Res. Ana. et Phys. sur les Ovaires, &c. Paris, 1840.

‡‡ De la Menstruation. Paris, 1842.

§§ Pott's Works, case 24, p. 329.

|||| Trans. of the Royal Society for 1805.

say; if he did not, it is a beautiful illustration of the accidental approach of theory to the truth when preceding fact.

Having given the cases of Pott and Cruikshank with the theory of Power, we come now to the remaining and more recent observations of the French and English writers. And here we find existing the spirit of contention, that which has done more than any one thing else to hinder the progress of science, and the respective writers of each nation engaged in a warm controversy as to the priority of discovery. On this subject we shall have nothing to say, leaving it entirely to themselves to settle this dispute.

In 1833, Mr. R. Lee, in the Cyclopœdia of Practical Medicine, vol. iii., art. "Disease of the Ovaries," reported four cases in which he had examined the uterus and ovaries of females dying whilst menstruating. His first case is dated March 11th, 1831; his words are, "at one point a small circular opening with thin irregular edges was observed in the peritoneal coat, which led to a cavity of no great depth in the ovarium * * * * to an extent of three or four lines; the surface of the ovary was of a bright red color * * * * both fallopian tubes were uniformly red and swollen, and their cavities were filled with menstrual fluid."

In the autumn of the same year he examined a second case, a young female æt. 20 years, who died suddenly of acute inflammation of the lungs. The right ovary "at one part—the peritoneal coat to a small extent had been removed. The edges of the opening were extremely thin and irregular."

His third case was sent him by Sir Astley Cooper, in July, 1832; it was the ovary of a young female who died of cholera. On examination, "at one point there was an irregular opening in the peritoneal coat, through which a slender coagulum of blood was suspended. This led to a cavity in the ovary filled with a firm coagulum." In the autumn of this year (1832) Mr. Girdwood sent him the uterus and ovaries of a female who died of scarlet fever. The menstrual flux made its appearance (according to Mr. G.) "*six hours before dissolution.*" "On the left ovary there was an oval cavity large enough to admit a tare, and no doubt left by the recent escape of an ovule; its margin was unequal and floccular, and as well as the walls throughout of a deep red color."

In his lectures on midwifery, Mr. Lee relates a fifth case, which was seen by Mr. Shaw in the Middlesex Hospital, May 31, 1841. The following was the appearance of the right ovarium: "In the right ovarium the appearance was presented of one of the graaffian vesicles having been ruptured. A part of the surface of the size of a four-penny piece was distinguished by a dark stain upon it; and here the peritoneal coat was slightly elevated, and the rugged edges towards the centre of the stained spot were of a particularly black color." From the foregoing it will be seen that there came under the immediate inspection of Mr. Lee four cases; his fifth was related to him by Mr. Shaw.

Mr. Girdwood's first and only case, so far as we have been able to ascertain, is the one already related by Mr. Lee. All his other cases go to prove or establish the views first expressed by him, viz., that the number of cicatrices correspond to the number of times the female has menstruated.

M. Gendrin, in 1839, published five cases which had been observed by him of females who died during the catamenial flows.

In the first, the left ovary was found congested; on the surface, near the middle, was seen an aperture about a line in diameter, with an irregular margin leading to a cavity as large as a hemp seed; its walls were vascular.

In his second case was seen a small circular opening, leading to a cavity two lines in diameter; the walls were of a bright red color. In the remaining three cases the same appearances were observed—from all of which he concludes a graaffian vesicle had been ruptured, and an ovum escaped.

M. Negrier has made nearly the same statement in the account given of the cases he examined.

M. Raciborski has also given an account of his examination in four cases, in each of which he found a rupture in the peritoneal coat, with thin, irregular edges, and the opening leading to a cavity, from which he concludes that an ovum had been recently discharged from the ovary.

Prof. Bischoff has also examined four, and in each he found a rupture of the peritoneal coat, leading to a cavity filled with coagulated blood; his conclusions are the same as those of M. Raciborski.

M. Boismont has come to the same conclusions from the observations he has made. There is a case reported by Dr. Post, in the New York Med. Gaz. for 1842, with remarks by Prof. Gillman, and an imperfect account of the cases on record, up to that time—where the female is said to have "menstruated within a week of her death;" but Dr. Post gives only a general statement of the case. It is not mentioned whether an opening was found (if there was one) in the peritoneal coat of the ovary.

Mr. Ritchie, in the London Med. Gaz. for 1844, gives an account of three cases. One menstruated six days previous to death, and the other two ten previous to death. In each of the three cases the irregular opening was present, leading to a cavity filled with coagula. And yet he adds at the close, "no trace of a vesicle which had been affected by menstruation was perceptible." It is from such cases as these that Mr. Ritchie "has set forth a copious proof, in his opinion entirely subversive of the recent hypothesis of the vesicular origin of menstruation."*

It is impossible for me to say what evidence Mr. Ritchie could wish if that related by him, and in the foregoing cases, is not sufficient to prove the truth of what he assumes to be a hypothesis.

In a case examined October 24th, 1845, by Dr. W. C. Parker and myself, in the presence of Prof. Gillman and Dr. Rawson, the woman died from apoplexy, and was menstruating at the time. The following were the appearances, as I find them recorded in my notes, taken at the time.

The left ovary, with its corresponding fallopian tube, much congested; the peritoneal coat on its anterior and superior surface was of a bluish purple color; near the centre of this portion were seen two points which appeared as if a rupture in the peritoneal coat had taken place; these points were filled with coagula; on removing this it was found that it filled two cicatrices, of which there were a number on various parts of the ovaries; between these two points a third was seen, where a rupture in the peritoneal coat had taken place; it was of a V shape, and irregular; the loose end of which turned up; the opening was filled with coagula. On laying open the ovary, a small cavity was found, about the size of a wheat seed, filled with coagula, nearly deprived of its red globules; the walls of the cavity were vascular; the fallopian tube was filled with menstrual blood; the cervix uteri injected, and appeared swollen, and the villa of the inner surface elongated and covered with the menstrual fluid; at one extremity of the ovary was observed an enlargement, which, when laid open, proved to be a well-marked *corpus luteum*, about four lines in breadth, and five in length, containing a cavity. Upon tracing out the history of this case, it was found that she had miscarried nine weeks previous.

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* Edinburgh and London Monthly Journal of Med. Science, Aug., 1845.

A very interesting case was published by Mr. Jones, in his work on the Diseases of Females. (London, 1839.) In prefacing it he says, "It has occasionally happened that at the *post-mortem* examination of a woman who has died during the existence of the catamenial effusion, an ovum has been found partly within the expanded extremity of the fallopian tube, and partly detached from the ovary; whilst the ovary has exhibited signs of congestion, and that portion of its membrane which surrounds the ovum has borne recent traces of a rupture. Some fourteen months since this condition was witnessed by myself and Mr. Lovegrove, of Upper Baker st., in the left ovary of a woman who died of congestion of the brain, on the first day of the catamenial effusion, in whom the hymen was perfect, and whose ovaries exhibited six or seven cicatrices. The same appearance has been reported by my late colleague, Dr. Richmond."

It is now very generally admitted that the graaffian vesicles proceed from the interior to the circumference of the ovaria in their development, and that they are not fully developed until they reach the surface of the ovaria (which takes place at the age of puberty, or at the first appearance of the catamenia). This opinion may be considered to have been almost proved to a demonstration by the observations of Girdwood and Ritchie, who have both examined the ovaries of the human female from infancy or birth up to puberty.

The cicatrices of which we have spoken, as being present in some of the cases, are found in no instance before the appearance of menstruation—at least such appears to be the result of the observations of the writer just referred to. And such also is the result of our own observations. In cases of aged females who have ceased menstruating, the ovaries present a shrivelled appearance, and upon minute inspection are found covered with these scars or cicatrices.

In a case examined by Dr. W. C. Parker and myself, of a woman, æt. 60 years, the ovaries were found very much shrivelled and wasted, and the cicatrices could be seen crossing each other at various points.

If then, these be the appearances presented during and after menstruation, it may be asked, what is the final nature of the menstrual flow? or what important service does it perform in the human economy? or in other words what important object is intended by nature to be accomplished by it? From a review of the cases related in this paper, we are disposed to regard the answer to the question as not difficult, but, on the contrary, as easy, and coming from well established facts.

In order to understand more fully the answer we shall give to the inquiry, it will be necessary to give a summary view of what takes place in the formation of the *membrana decidua* after impregnation takes place; after which we can return to the consideration of the true nature of menstruation.

In the more modern elementary treatises on physiology and midwifery it is generally conceded that the highly congested state of the uterus and its appendages, which exists at the time of impregnation, gives rise to the effusion of coagulable lymph from its inner surface,—that this becomes organized, and constitutes the decidua. A recent opinion has been advanced that it is formed by a thickening of the mucous membrane. And although this comes to us from high authority, we are led to doubt the correctness of it—not only from our own observations, but from equally as high authority, as that of Dr. Sharpey, and Prof. Weber. That the mucous membrane is thickened and its villa are elongated there can be no doubt—but that the decidua is composed entirely of this membrane in a thickened state, we still want facts to prove. But to return,—whilst the formation of the decidua is going on, the ovum, which escaped from the ovary by the rupture of the graaffian vesicle, is passing through the fallopian tube to the uterus, there to go through successive stages of development.

Now let us turn to the nature and office of menstruation. The uterus and its appendages during this flow are found in the same state of engorgement—the rupture of a graaffian vesicle takes place with the escape of an ovum into the fallopian tube—the villa of the inner surface of the uterus are elongated—the ovum escapes into the uterus in the same manner—and an effusion of blood and consequently lymph takes place, but no decidua is formed—here the analogy ceases—but why cease here? surely from no other cause than the want of impregnation. The object of this function then is the formation of the decidua,—and menstruation may be defined to be, as Mr. Power said, "an imperfect or disappointed action of the uterus in the formation of the decidual membrane."

It will be seen that these are not hypothetical views presented to our minds unaccompanied by facts to confirm them; but legitimate conclusions drawn from facts, made without reference to any particular theory or preconceived opinion.

As to the formation of a *corpus luteum,* as some have supposed, at each menstrual period, when a rupture of the graaffian vesicle takes place, we shall have nothing to say at present, leaving this inquiry, replete with important consequences in a medico-legal sense, for a future occasion.

PART SECOND.

Critical Analysis.

ART. X.—*New Elements of Operative Surgery.* By ALF. A. L. M. VELPEAU, Professor of Surgical Clinique, &c., &c.; carefully revised, entirely remodelled and augmented with a *Treatise on Minor Surgery.* Illustrated by over 300 engravings; accompanied with an Atlas in Quarto of twenty-two Plates. First American, from the last Paris Edition. Translated by P. S. TOWNSEND, M.D., &c.; augmented by several hundred pages of New Matter, under the Supervision of, and *with Notes and Observations* by VALENTINE MOTT, M.D., &c., &c. In three volumes. Vol. 2d. J. & H. G. Langley, New York, 1846. 8vo. pp. 1092.

LITTLE more than a year ago we had occasion to notice the first volume of M. Velpeau's great work on Operative Surgery, as rendered into English by Dr. Townsend, of this city. The second volume is now before us, and the remaining portion is announced for October next; so that in the course of the present year, we may hope to see the complete work in its American dress, with all its addenda.

The original treatise has been too long before the profession and too favorably received, to need any special commendation or criticism, at present. In some departments of Surgery, and more particularly in reference to the claims of American Surgeons, it is perhaps not quite so full as it might have been. But, taken as a whole, it is beyond all comparison, the most thorough, systematic, and philosophic exposition of all that pertains to Operative Surgery, that has ever yet appeared. It has already served as the ground-work for numerous systems and manuals of more or less note; and it is destined to hold its present rank among the classical literature of the profession and as a book of continual reference in the hands of practical surgeons, long after these systems and manuals have been forgotten. With this estimate of the original, we cannot but congratulate our professional brethren on the appearance of the present publication.

During the few days that have been allotted to us for noticing this second volume, we have not had sufficient leisure to compare it very closely with the text of M. Velpeau. But of Dr. Townsend's merit as a faithful and competent translator, we satisfied ourselves sufficiently, in our examination of the first volume.

The second volume occupies nearly eleven hundred pages, and is devoted to some of the most important subjects in the whole range of Operative Surgery. In connection with the text, we find here some valuable contributions from the pen of Dr. Mott; the details of the most of Dr.

Mott's important operations, particularly in the department of aneurisms and the excision of bones; a few original communications from other surgeons; and a vast amount of excerpts and annotations, by Dr. Townsend.

We do not propose at present to enter into a critical examination of the extensive collection of practical matter detailed in this volume. Of the text we shall have little or nothing to say. We must content ourselves with a simple enumeration of the subjects spoken of, and with a hurried glance at those portions of the book that have been furnished by the Editors.

Commencing, then, with Dr. Townsend's preface, we find him clearly in love with his labor; but still more in love with his collaborators. It will be remembered that, in our notice of the first volume, we had occasion to offer a few words in qualification of Dr. T.'s eulogy on M. Velpeau. We now find him devoting his attention to his other associate.

> "Another source of extreme satisfaction to me will be in the reflection that the profession in after times, perhaps, may not be unwilling to bestow their commendation upon these efforts. But a still higher source of gratification I frankly confess, is that of the conviction, that in my attachment to a long-cherished, personal, and honored friend, preceptor and kinsman, and one whose eminent skill justly fills so large a space in Surgical history (Dr. Mott), I may have been, as I pledged myself I would be (see vol. i.), instrumental both for him, and for his country, in rescuing the details of all his great and master operations, and discoveries, and improvements in surgical processes and principles, from that indistinctness into which they were necessarily passing, by his neglect (culpable, it would be, but from his repugnance to self-laudation), to gather them together as I now have done in these volumes, from the scattered Medical and Surgical periodicals and fugitive works in which they had been briefly registered, successively as they emanated from his great practical mind, or were created into existence by his incomparable genius and consummate skill."—P. iv.

One is almost ready to believe that Dr. T. has been contemplating Dr. Mott through some sort of compound microscope, the glasses of which, though of sufficient magnifying power, were by no means achromatic, since they appear to have cast an iridescent glow over the object of his study, which other observers will hardly admit to be natural. The following paragraphs will sufficiently illustrate our meaning. Long may our illustrious friend and townsman, Dr. Mott, live to enjoy his own apotheosis!

> "I feel constrained also to add, that the accomplishment of this part of my labor is one to which considerations of love of country add, in my mind, no slight degree of value. For young as our country is in history, and filled as its annals are with great names, both in the heroic period of its settlement, and in its subsequent ages of military renown, national emancipation, and diffusion of the arts, there is, in my humble judgment, no name that adorns those annals either in the battle field, or in the councils of government, or in its diplomacy, that has added more sterling reputation and abiding lustre to the intrinsic glory and future fame of America, than that of VALENTINE MOTT, unaided and ungilded though that name may be, by the insignia of office or of power.
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> "For one who, in his duties as a Christian and a man of science, has done so much personally in the active field of benevolence, and struck out such noble discoveries and new paths to enable us more effectually to alleviate the miseries of our fellow creatures, there will be a balm, as we believe, that will rest upon his memory in after time, less dazzling perhaps, but certainly full as enduring, and far more endearing to future generations, than any that the most ardent

homage of patriotism could feel inspired with, for the glare of the most brilliant civic or military exploits."—P. v.

Leaving the preface, we next arrive at what Dr. T. calls a "Supplementary Appendix." This occupies about eighty pages, and is mostly made up of extracts from recent publications, the greater portion of which should have been omitted, or condensed. Dr. Townsend's main defect as an annotator, and one that is conspicuous in many parts of this volume, is a disposition to dwell too much on mere novelties, without due regard to the character of the main work; often to the exclusion of many points in American Surgery which M. Velpeau has either mis-stated or omitted. Still, as an editor, he has posted up many facts that add to the value of the book. He has collected together almost all that Dr. Mott has ever done, and for this we have to render our acknowledgments. But, however much Dr. Mott and "American Surgery" may be associated, it is well to remember that the two are not identical. True, Dr. Mott is looked upon as the Coryphæus of Surgery in America; yet, as such, he should not be allowed to overshadow and eclipse his humbler associates. In every enlightened community there is usually connected with one or another of the great departments of science and art, some one name particularly conspicuous; but this name, among the living, is never long the same. The rainbow persists, while the drops that reflect it are continually changing.

In turning at random to the wonders and curiosities embodied in this "Appendix," the first that meets our eye is an alleged instance of cure, in about a month, after an operation for the extirpation of the whole of both upper jaws. All of which may be true, or—it may not. We have not room to quote it.

At another page we find that tetanus has recently been cured by alcoholic drinks; a mode of practice which may perhaps be new to Dr. Townsend, though not so to others. We cannot see that it has any relation, more special than other internal treatment, to operative surgery.

At a third point we meet with a citation of three pages, to show the advantage of treating morbus coxarius by fixing the limb in the straight position, as set forth, within the past year, by Mr. Key, of Guy's Hospital, London. The practice here recommended is worthy of attention. But Dr. T. might have known that this very practice we ourselves have been in the habit of employing in the treatment of hip-disease, at the New York Hospital, for several years past; and yet that we lay no claim to it, as original with ourselves; the first suggestions that gave rise to our adoption of it coming, as we believe, from Philadelphia. We may, perhaps, take some future opportunity of recurring to this subject. We would now simply remark, that the practice to which we allude, viz.: confining the patient to bed, and extending and securing the limb in the straight position, as in ordinary fractures of the thigh, has, in our hands, answered a better purpose than any other mode of treatment that we have ever brought to bear upon this obstinate disorder.

The "Supplementary Appendix" closes with the following passage.

> "A perfect *cure of a case of spina bifida*, in a child aged about nine years, was effected at least *fifteen years since* by Dr. Mott, by means of the entire exsection of the tumor, which was near the size of a goose egg, and which had existed from birth, over the lower part of the dorsal vertebræ. The integuments and sac had become very much thickened, so as to have even a normal appearance. An

elliptical incision was made on each side of the tumor, in order to leave integument enough to be approximated over the deficiency in the vertebræ. The wound was then treated by interrupted sutures, in the manner of hare-lip. It healed perfectly by the first intention, and the child was completely cured, and afterwards enjoyed vigorous health. It will be seen, therefore, that this process, lately successfully revived (see notes in the text of this volume towards the conclusion), was certainly employed in this country, and with the most happy result, by Dr. Mott, as far back as the year 1830. A case, we perceive by the *Gaz. Médicale*, has very recently been cured in France by excision of the tumor, and then uniting by a sort of quilled suture."—P. xcix.

Dr. T. might have further stated, that "this process was certainly employed in this country, and with the most happy result," by Dr. Sherwood, of Rutland, "as far back as the year" 1811; and for this have found authority, either in the New York Medical Repository, vol. 17th, p. 208, or in Chelius's System of Surgery.

Arriving at the body of the work, we find this volume commencing with SECTION FOURTH. *Operations upon the Arteries in general.*—This section, occupying 117 pages, is divided into three chapters, and materially augmented by annotations. *Chapter first* is devoted to Anatomical Remarks; *chapter second*, to the Spontaneous Termination of Lesions of Arteries; and *chapter third*, to the Treatment of Arterial Lesions. The editorial notes are scattered promiscuously throughout the text. To some of these we may perhaps have occasion to return.

SECTION FIFTH. *Operations upon Particular Arteries*, occupying 263 pages, is divided into four chapters of text, interspersed with annotations, and augmented by an additional chapter from the pen of Dr. Mott.

Chapter first is devoted to the arteries of the Lower Extremities; *chapter second*, to those of the Upper Extremities; *chapter third*, to Arteries of the Head; and *chapter fourth* to Arteries of the Neck. The additional chapter, by Dr. Mott, is entitled "Remarks on Aneurisms." It occupies, with its supplement and appendix of cases, about one hundred pages. This chapter is one of considerable importance—personally, to Dr. Mott,—since upon some of the facts herein recorded, his reputation as a surgeon has mainly been established; and generally, to the profession, in the bearing of these facts upon the history of surgery. We will hasten to return to it.

SECTION SIXTH. *Operations upon the Veins*, occupying, with notes and comments, about 38 pages, is mainly devoted to Varices. Here we find Dr. T., in behalf of M. Velpeau, and almost against the will of the latter, advocating a claim to Sir Astley Cooper's operation for the radical cure of varicocele; but in so doing, he has mistaken Sir Astley for his nephew, Mr. Bransby Cooper. Here, too, we find that the poor surgeons of America, with their humble contributions to the surgery and pathology of the veins, have been quietly set aside, to make room for M. J. Helot, M. Vidal de Cassis, and a host of other names equally unknown to fame in this department.

SECTION SEVENTH. *The Lymphatic System* occupies but a single paragraph.

SECTION EIGHTH. *The Nervous System*, occupying 19 pages, is divided into *chapter first*, Operations upon the Nerves of the Head and Neck; and *chapter second*, Operations on Nerves of the Limbs; and is augmented, as usual, by an abundance of notes. Among these we would like to have inserted a "somewhat novel" operation of our own, the subcutaneous section of the Anterior Tibial Nerve, as it passes behind the head of the fibula. We have, it is true, not thought it worth while, as yet, to make formal announcement of it in print, although performed more than a year ago; but it is as well to note it here, lest before the appearance of the last volume of these New Elements of Operative Surgery, our friend Dr. T. should find a notice of something like it, either in Braithwaite, or Ranking's Retrospect.

SECTION NINTH. *Amputation of the Limbs*, occupying 225 pages, is divided into *part first*, Amputations in General; and *part second*, Amputations in Particular; and each of these is subdivided into several chapters. We find among the notes in this section, a citation from the *Jour. des Connaiss.*, &c., for August last, going to show that some one has recently amputated at the knee-joint, in Mexico; but we find no notice of the very ingenious and creditable operation, at this same joint, by our delinquent friend of Philadelphia.

SECTION TENTH. *Excision of Bones*, occupying 254 pages, is divided into *part first*, Excision in the Continuity of Bones; and *part second*, Excision of Articulations. Each of these is subdivided into several chapters. Dr. Mott's own labor in this department of surgery, as herein recorded, is of much interest. These contributions, taken in connection with his "Observations on Aneurisms," will probably constitute his principal legacy to the profession. As such, we would have been more pleased to see them presented to the public in an independent form. But since Dr. M. has thought best to unite his fortunes with those of M. Velpeau, all we have to say is, that M. V. has reason to be proud of the connection; not that Dr. Mott has said so well what he has had to say, as that he has, on the whole, done so well what he has had to do. It is better, says Carlyle, to act an epic, than to speak it.

We do not find by the notes appended to this section, that Dr. Mott has ever had occasion to perform an operation for the total extirpation of the upper jaw. No mention is made of the operations of this sort that have been performed in this city, or in other parts of this country, and Dr. Townsend, in one of his comments entitled "Exsection of the Upper Jaw," has confounded this operation with the older modes of attacking this bone in its continuity.

SECTION ELEVENTH. *Trephining* occupies 39 pages, and is divided into three chapters; *first*, on the Modes of Trephining the Head; *second*, on Trephining the Bones of the Trunk; *third*, on Trephining the Bones of the Limbs. In this section we find nothing introduced, by way of note, to the credit of the late Dr. Nathan Smith, or of his son, Dr. Nathan R. Smith, for their well known operations with the trephine in connection with suppuration of bones; but a special note is introduced to inform us that a certain M. Moulaud, some time last year, did what these American practitioners long since taught him to do.

SECTION TWELFTH. *Tumors*, occupying 36 pages, and terminating the volume, is divided into, *chapter first*, Tumors of the Integuments; and *chapter second*, Vascular, Fungous, and Erectile Tumors. Among the few notes introduced into this section, we find nothing to detain us.

We must now return from this hasty and imperfect outline of the contents, and general arrangement of the volume, to notice more particularly a few passages amid the crowd of materials which have been furnished by the editors. Of Dr. Townsend's portion of these, we have, perhaps, already said enough. We shall refer to him, hereafter, only as the reporter for his associate. The remaining pages of this article must be assigned to Dr. Mott. And, first, of the graduated compress of sponge; a mode of treatment "somewhat novel," for the arrest of arterial hemorrhage.

> "Dr. Mott believes he has seen an instance lately, in which the subclavian artery, without the scaleni muscles, may have been wounded during an operation for the removal of a small tumor above the clavicle. The wound was probably of the nature of a *small flap* on its superior surface, between the first rib and the scalenus anticus muscle. In fact, the artery was perhaps nicked in this part, as a terrific hemorrhage ensued. In this dilemma, Dr. Mott being sent for, adopted instantly a treatment somewhat novel, but which proved eminently successful, and went to corroborate his suggestion that it was the subclavian which was wounded.
>
> "The practice consisted in the immediate application of a *small portion* of compressed sponge upon the bleeding part, which was situated at nearly the depth of the forefinger. This was followed successively by other small portions of sponge, until the wound was entirely and *compactly* filled up. An entire flat piece of sponge, just the size of the external opening of the wound, was now nicely adjusted over the ten or dozen smaller pieces which had been previously impacted. Finally, a larger flat piece of sponge, of still greater dimensions than the last, was now used to cover the whole mass, and to extend some distance on every side beyond the margin of the wound.
>
> "Pressure with the hand was then made, by a succession of assistants, unremittingly for three days and three nights. After this, the pressure was confided to adhesive straps and a bandage, until suppuration made it proper to commence the removal of the sponges. This was done from day to day, with the utmost care, and by taking away piece after piece, without the least violence, until the last was separated, which was finally effected at the expiration of a week from the time that this surgeon commenced with their removal. The wound then granulated, and healed beautifully.
>
> "The advantage of the use of sponge, as a means of arresting hemorrhage, has long been favorably known; but Dr. Mott considers that its great value, in cases like that here related, consists in the application of a number of small and separate pieces, by which portion after portion, at a suitable time, may be removed, with the least possible violence to the wounded artery.
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> "Every surgeon who has been in the habit of using compressed sponge to arrest small and vexatious hemorrhages, must be aware of the great inconvenience and hazard of one entire large piece; for when the time arrives for its removal, the granulations are found to have penetrated into its cellular texture to such extent, that the force required to take it away, and to tear it loose from these connections, endangers a renewal of the bleeding. All of which is obviated by the successive superposition of small and separate pieces or chunks.
>
> "This treatment appears to have been so nicely adapted to the little flap or nick supposed to have been made in the subclavian in this case, and to have compressed and secured it so perfectly to its place (as in the restitution of organs, see vol. i.,) as to have reunited its lips to the parent trunk by first intention.
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> "Dr. Mott sees no reason, from experience and observation, and the records of surgery, to doubt the possibility of such a wound, even in a large arterial trunk, being healed, without the trunk itself being obliterated, or its calibre being sensibly diminished. He is of the opinion that, if the subclavian itself in this case was not wounded, it must have been an enormous anomalous branch, close to the great trunk; for his finger, which commanded the hemorrhage, was upon the subclavian artery, and the first piece of sponge was passed quickly under the point of the finger itself, and there held until another was stowed away by its side."—Pp. 30—32.

The case above referred to, is one that has already been reported in this journal (May, 1845, vol. 4, p. 340). It has, in various other forms, been presented to the public. We shall not allude to the personal vituperation, crimination, and recrimination, to which it has already given rise. Our business at present is only with Dr. Mott's version of it. The foregoing statement, we must premise, is in the language, and with the emphasized expression of Dr. Townsend, who, we believe, never saw the case. But Dr. T., in his preface, has expressly declared that all the new matter introduced by him, has been "under the immediate supervision of Dr. Mott." Dr. M. then claims for himself the credit of curing what he considers a wound of the subclavian artery, by the use of "compressed sponge."

Now, there appears to us a certain want of candor, in the attempt to establish this fact. Let us take a bird's-eye view of the circumstances.

The patient, it appears, was a lady, who had submitted to an operation for the removal of a lymphatic tumor, not larger than a hickory nut, seated above the clavicle, and well on towards the shoulder. That version of the case in which the operation is most bitterly attacked, admits that the tumor was small, *subcutaneous*, and situated *on the shoulder*. The incision for its removal had been made parallel with the fibres of the platysma myoides muscle, over the centre of the swelling, and about two inches long. The lower portion of the tumor had been already detached. But before it was entirely removed, a vessel, "closely in contact with the tumor on its outer surface," was divided. The jet of blood that followed was *not emitted per saltum*. "It would not have filled a half-pint bowl in six minutes." No ligature was applied. Pressure with a sponge appeared to have effectually arrested the bleeding; which, altogether, did not exceed four ounces. The patient, during the operation, was in a sitting posture, and at the close of it, "walked up to her bed-chamber." The surgeon, after dressing the wound, remained in the house for about an hour, and another hour passed away before any recurrence of hemorrhage. On his return he found the patient in a sitting posture, and the dressings saturated with blood. These he removed; applied both thumbs over the wound and sent for further surgical assistance. Sundry gentlemen were accordingly summoned, and among the rest, Dr. Mott. The hemorrhage must have been rather profuse. It had nearly subsided before these gentlemen arrived. We need not repeat any portion of the case recorded by Dr. Mott, further than to say that no attempt was made to explore the wound; that pressure over the injured vessel *never once checked the pulsation at the wrist;* and that *the wound never cicatrized.* About the sixteenth day, erysipelatous inflammation appeared around the edges of the sore, and soon spread extensively over the surface of the body, attended with a typhoid form of fever, and gradually exhausted the patient. Death occurred in about a month after the first accident. There was no post-mortem inspection of the body.

Under the foregoing circumstances, we would ask, what reason was there for supposing that the subclavian artery had been injured? The situation and character of the tumor would lead to no such inference; and, during the dissection, "the knife was not carried out of the way of the tumor at all." The hemorrhage was not emitted per saltum. Pressure on the wound never interrupted the circulation at the wrist. In short, the bleeding, for all that we know to the contrary, might have been from a divided vein. We do not undertake to show that such was the fact. But the color of the blood is no sufficient argument against such a conjecture, nor is the amount of hemorrhage. Every one familiar with surgical operations, knows that venous hemorrhage is sometimes of so bright a color as to mislead both operator and assistants. And if instances were necessary to show that the amount of venous hemorrhage may be so considerable as to lead to similar mistakes, we might cite a case within the range of Dr. Mott's own personal experience, in which the late Dr. Post, Dr. Stevens, and himself, were so far misled as to make preparation for taking up the external iliac, for arresting a hemorrhage at the groin, which, on the removal of the pressure, had already ceased of itself, and never recurred.

Again, what authority have we for supposing that the wound was made in the form of a *small flap*, or that such a flap, in the trunk of the subclavian artery, could, by graduated pressure, be made to heal by the first intention, without obliterating the vessel? A couple of gratuitous conjectures, to get rid of accounting for the persisting pulsation at the wrist.

But, after all, the turning point in this case was the introduction of the sponge.

We have asked some of the gentlemen who were present, why no attempt was made to explore the wound, and secure the divided vessel; and have been told, that this question was in agitation among them when Dr. M. unluckily recommended his sponge tent. Unluckily, we say; for, from the history of the case, as far as we can make it out, both from published and verbal reports of it, we cannot but suspect that the erysipelas, which terminated the patient's life, was the direct result of the protracted and "terrific" irritation of this foreign body, which was "stowed away" compactly into the wound, and held there by the hands of assistants for three days and nights, and subsequently, by means of adhesive straps and bandages.

Whatever, then, may be Dr. Mott's estimate of his own peculiar practice in this case, to the facts of which he has given so unwarrantable a turn, we have only to say, that in a similar case we would not recommend its repetition. We must now turn to his "remarks on aneurisms."

These he commences, by some reflections on a recent case, in which he and others were led to mistake an aneurism of the aorta for an abscess. This case has also been recorded in a former number of this journal. In Dr. M.'s comments upon it, we meet with some judicious observations.

> "All surgeons, whose opinions are of any value, will readily excuse mistakes that are made by even those who have had the greatest experience, because, notwithstanding all the light afforded by pathological investigations and stethoscopic examinations, it will, we think, be generally admitted by the profession, that no subject is more difficult and obscure than that of sub-sternal and thoracic aneurism.
>
> "Certainly, when aneurisms show themselves as they ordinarily do near their origin, destroying the superimposed tissues, soft and hard, and presenting a pulsating tumor to the eye and touch, the true nature of the case is almost self-evident. But when they *sprout out* to a great distance from the trunk on which they have originated, in the form of a long tube or neck, developing their true character at a remote point, the diagnosis must necessarily always be exceedingly difficult."—P. 285.

The second topic of this chapter is the "arteria innominata."

It is somewhat remarkable that Dr. M., the originator of the operation upon this vessel, an operation to which he unquestionably owes much of his reputation, should be so little acquainted with the statistics of it. M.

Velpeau has cited six cases in which it has been performed on the living subject. These, says Dr. Mott, "as far as my information reaches, are all that we possess any authentic account of."

We beg leave to refer him to another unsuccessful case by M. Hutin, of which he will find a notice in the Amer. Journ. of Med. Sci. for Oct., 1842, and in other places. Other cases are referred to by Mr. Fergusson. And these are not all. Our worthy friend, Dr. R. K. Hoffman, of the New York Hospital, some years ago, attempted the operation; and after making a most thorough and satisfactory display of the vessel, finding it already involved in disease, he very properly desisted from passing the ligature around it. Mr. Fergusson alludes to a similar attempt by Mr. Porter, of Dublin; and this permits us to say, that among our private communications from Dublin, we have received the whole of the details of this last operation, which, if we now recollect rightly, was performed since that of Dr. Hoffman. These instances, then, materially augment the list from which M. Velpeau has already made up his mind to reprobate any further attempts upon this vessel.

Dr. Mott, however, is of a different opinion. And notwithstanding his recent and remarkable conversion to "conservative surgery," and a somewhat inconsistent opposition to Dr. J. K. Rodgers's late operation on the left subclavian, we still find him advocating further attempts upon the innominata.

> "I am aware that many surgeons will still doubt the propriety of attempting any future operations upon this artery, as all the cases have terminated fatally. Yet I am free to say, that if ever a case should present itself to me again, I should *tie the primitive carotid at the same time that I tied the innominata*, as both can readily be done through the same incision. I am very well aware that this would be objected to by some as inflicting an extent of operation new and untried; yet it seems to me, that by thus intercepting the retrograde current through the primitive carotid, there would be less chance of any reflux hemorrhage, in the event of a phagedenic ulceration being set up in the wound. This is, however, a most momentous question for a surgeon to decide upon, and must ever be left to his own judgment and discretion."—P. 287.

Dr. M. next alludes to his operations for securing both carotids.

> "In all the cases in which both the carotids have been tied, an interval of some months has generally been allowed to elapse. In one of my two cases, twelve months passed away before it became necessary to tie the remaining carotid. This young man did not experience the least inconvenience when the circulation was interrupted through the last carotid, and he recovered perfectly.
>
> "In the other case, which I have never yet published, the imminently hazardous and formidable character of it was such as to justify, in my opinion, the tying of both carotids at the same time, with an interval of only about fifteen minutes. Coma and stupor in the course of a few hours supervened, and he died within forty-eight hours."—P. 288.

We regret that we have in no part of this book an "authentic" account of this last case. It is one to which, in former reviews, we have had, more than once, occasion to allude. The patient, before Dr. M. took charge of him, had undergone an operation for what had been taken for disease of the parotid gland, but which was, in fact, only a carcinomatous degeneration of the lymphatic glands of the neck. The disease, of course, returned; and before the patient entered the hospital, it had made most frightful havoc with the tissues on both sides of the neck, and was extending upwards along the back of the head.

The ligature of the right carotid gave rise to no unpleasant symptoms; but on interrupting the circulation through the second vessel, the patient, after a sort of convulsive shudder, swooned away. The ligature was slackened, and he recovered; it was again tightened, and he swooned again; it was loosened a second time, and a second time he rallied. It was tightened a third time: he swooned a third time; but, after a few moments, he so far rallied as to open his eyes. The knot was permanently secured; he never spoke afterwards. The operation was performed just after mid-day, and the patient died in the course of the following night.

As an instance in illustration of the effects of ligaturing both carotids simultaneously, this case is of vast moment. The placing of a ligature, however, on any vessel, for the cure of unequivocal carcinomatous degenerations, is a practice which neither sound pathology, nor discriminating surgery, should ever sanction.

We cannot here attempt to follow Dr. M. through his remarks on ligatures of the subclavian artery; and we must leave to Dr. John Kearny Rodgers the business of defending his own operation on the left subclavian at the inner side of the scaleni, a business which, we believe, he is prepared to undertake, (see page 219 of this number). Neither shall we stop to settle the relative claims of Dr. Gibson and Dr. Mott, to the honor of having first applied a ligature to the common iliac. The facts upon which this question may be settled, are already familiar to the profession.

Had we sufficient space at our disposal, we would willingly give place to Dr. Mott's judicious observations on the best mode of arriving at the external iliac. But we must conclude our remarks on this important chapter of his by a few observations on a case herein quoted, the first, perhaps, that Dr. M. ever published.

Dr. M., at page 290, refers to the case in question, as one in which Astley Cooper attempted to place a ligature on the left subclavian within the scaleni. "We saw," says he, "the first and perhaps the only attempt that ever was made to tie this artery. This was by my illustrious and revered preceptor, Sir Astley Cooper. After working indefatigably with all his eminent skill and superlative tact for an hour and a half, he abandoned the operation as hopeless." Dr. M. has since made this same statement as his main objection to any further attempt upon the vessel at the point indicated. But in printing this, and in advancing it as an insuperable objection to Dr. Rodgers's operation, he has sadly forgotten his own record of Astley Cooper's case, which we here find republished from the New York Medical Repository, for 1810. It turns out, after all, to be, as we believe, the case in which Mr. Cooper, in 1809, is said to have applied a ligature to one of the nerves of the brachial plexus.

> "The situation of the man being truly painful, and it being evident that the disease must prove in a short time fatal, if no operation were to be performed, A. C. was determined to make an attempt to take up the subclavian artery, just after it had passed betwixt the first and second scalenus muscle."

The vessel then was exposed *just after it had passed betwixt the scaleni.* Has this operation never been attempted since 1809? In what does it correspond with Dr. M.'s present recollections of it? or with the operation of Dr. Rodgers?

Sir Astley Cooper, it is reasonable to presume, knew something, even at that early day, of the relative anatomy of the *thoracic duct*. Were he now living, we fear he would blush to find himself represented as unacquainted with it. For surgeons of the present day think no more than he did in 1809, of meeting with this duct, in their operations upon the subclavian artery "*just after it has passed betwixt the first and second scalenus muscle.*"

> "Would any but a great mind, conscious of its own powers, and the rectitude of its intentions, make the following remarks?—He said to me, 'I am suspicious that, in this operation, the thoracic duct must have been divided, as it was on the left side; though I did not think of it at the time of the operation, nor before it.' I could not learn that any person present had thought anything about the danger of injuring this vessel; no doubt from its being a vessel which we have never been accustomed to think of in any operation. I regret that it is not in my power, at present, to satisfy the curious on this point, as A. C. had not ascertained the fact when I left London."—P. 305.

We had marked one or two other passages in this report of Mr. Cooper's case. But time and space are urging us to desist. We must therefore hurry on to what Dr. M. has to say in some of the following sections. And next of his operation at the hip-joint.

The patient was a boy ten years old, who had suffered a severe fracture of the thigh, had been bed-ridden eight weeks, and was greatly emaciated by profuse suppuration.

> "On the 7th of October, 1824, the patient, after having passed a comfortable night, was placed on the table in order to be operated upon. An incision was made over the femoral artery, as it emerges from under the femoral arch, and the vessel secured by a ligature. While feeling on the outside of the artery for the lesser trochanter, the pulsation of a vessel, apparently but little smaller than the femoral artery immediately below the ligature, convinced us that, in this case, the profunda femoris was given off above the femoral arch, as we occasionally find it. This vessel was taken up.
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> "Lisfranc's knife was then introduced between the artery and bone, and carried through close by the neck of the femur towards the tuber ischii, thus forming the inner flap. The external flap was formed by cutting from without inwards. The hemorrhage from the veins and small arteries was considerable when the incisions were made, and numerous vessels were taken up: but comparatively little blood was lost during the operation, and the patient was put to bed shortly after it was completed. After the inner flap was cut, some of the surgical attendants examining the lesser trochanter, pronounced that the head of the bone was *not diseased*. In order to satisfy the doubts expressed, the bone was sawed through the lesser trochanter, when it was found to be of the consistence of cheese, being denuded of periosteum on the outer side up towards the joint, and requiring to be removed, which was afterwards done, as originally contemplated." —P. 652.

There is a tradition abroad among the surgeons of the New York Hospital, that "the attendants," above mentioned, were Dr. M.'s colleagues; who, believing the head of the bone to be merely softened in connection with the general emaciation of the patient, and by no means in a condition to justify its removal, would not sanction this procedure; that Dr. M., in deference to their opinion, as he was in some degree bound to do, dressed the stump, leaving the bone in place; and that in the course of the afternoon, he returned to the patient, opened the wound anew, and dissected the head of the bone from its socket. Nothing is said as to the condition of parts within the capsule.

Now, this tradition is not wholly irreconcilable with the published account of the case. It only shows that the operation was of a class for which we have no English expression, but which in French surgery is called "*un procédé en deux temps.*"

Had we sufficient space we might find among the remaining cases recorded in this volume, much matter for contemplation. We need but refer to the great case of excision of the clavicle, which Dr. M. facetiously styles his "Waterloo operation;" whether because he never intends to repeat it, or never expects to exceed it, we will not undertake to determine. It was performed in 1828, and illustrates, as much as any other of his great performances, his consummate ability as an unshrinking, expert, and successful operator.

Dr. M., until very recently, had supposed that he was the first surgeon who ever successfully extirpated the lower jaw. Certain recent developments have led him to fear that posterity may be unwilling to award him this honor. We have no disposition to go into the matter just now; the facts are before the public.

In conclusion, be it observed, that in this hasty notice we have dwelt mostly on such of the editorial matter as appeared most open to objection. We have, for want of space, passed over much that is highly worthy of commendation. We have chosen this course, not the most agreeable to ourselves, under a sense of duty; knowing, as we do, that Dr. Mott's reputation as a practical surgeon, is no longer in need of the continued unction of unmeasured adulation. It has already placed him among the brightest ornaments of the profession. And it is too enduring to be materially impaired by the voice of independent and unbiased criticism. We have only room further too add that his contributions to this great work of M. Velpeau add much to its value as a book of reference, and that in the whole circle of surgical literature, there is no one work which we can more heartily recommend than this, to both student and practitioner, for all that relates to operative surgery. J. W.

Art. XI.—*Lectures on the Operations of Surgery, and on Diseases and Accidents requiring Operations.* By Robert Liston, Esq., F.R.S., with numerous additions, by Thomas D. Mutter, M.D., Prof. of Surgery in Jefferson Medical College, etc. Philadelphia: Lea & Blanchard. 8vo., pp. 565.

This is a very attractive book, both in respect to mechanical execution and contents. Printed on fine white paper, with a fair new type, and embellished with more than 200 well executed wood-cuts, it presents altogether as beautiful an appearance as a work of art, as its matter is interesting and important to the practical surgeon. We should have preferred to have waited until Mr. Liston had completed his course, especially as the remaining lectures were to have been comprised in two additional numbers (monthly) of the Lancet: but we console ourselves with the reflection that the Editor intends to make up a second volume of equal size with the first, supplying from his own resources such amount of material as may be necessary for such purpose. In this case we shall have no hesitation in saying that the first volume ends very appropriately where it does, and if the addenda of the second volume equal in value those of the first, the profession will be in possession of a surgical work of the highest interest and importance. As far as the work goes, it must certainly be regarded as very complete, the Editor having furnished near 250 pages of additional matter, equal, we believe, in all respects, so far at least as practical utility is concerned, with the original text of Mr. Liston.

The work commences with some very judicious remarks on the *Importance of Operative Surgery, and the necessity of a thorough knowledge of Anatomy; On Incisions, Hemorrhage, Dressing Wounds, Union of Wounds, and Sutures.* Professor Mutter has added a very useful section to the first lecture, relative to the action of a ligature upon the different vessels, and its influence upon the circulation of the neighboring parts, as well as in the vessel itself. With respect to the use of *sponge* for the suppression of hemorrhage, Mr. Liston remarks that there is this objection to it, that we cannot employ any great degree of pressure, in consequence of its yielding properties; that if allowed to remain any length of time in the wound, granulations shoot into its interstices, and hold it fast, so that we cannot remove it without causing both pain and loss of blood.

Prof. Mutter agrees with Mr. Liston as to the superiority of the water-dressing in wounds and injuries, and remarks as follows, p. 67:

> " In lacerated wounds, to which Mr. Liston refers in the text, no dressing is comparable to the '*water*' in some form or other, and for several years I have employed as a *first dressing* nothing else. In summer I use *cold*, and in winter *warm* water, and apply it as recommended by Liston and McCartney, viz., after cleansing the wound, and approximating its edges, whenever this is proper, pledgets of *patent lint* dipped in water are to be gently placed upon its surface, and the whole covered with a piece of oil silk to prevent evaporation. In summer, I have found it best not to apply the oil silk, as it keeps the part too hot, and in its stead apply *two thicknesses* of wet lint, which will retain the moisture much longer than one. An assistant should, also, about every half hour, pour a spoonful or two of water over the dressings, but without removing them. Thus treated, I have seen the most terrific lacerated wounds from machinery or gunshot heal most rapidly by the first intention. Only a few weeks since I treated the son of a professional friend who had received a severe lacerated wound with the loss of a portion of two fingers from the bursting of his gun, by the cold water dressing, and nearly every fragment of skin that could be placed in a proper position, united by the first intention."

Dr. Mutter thus speaks of the isinglass plaster:—

> " The isinglass plaster referred to by Mr. Liston, is exceedingly well made by Mr. Husband, of this city: and, for some time past, I have almost abandoned the use of the old adhesive plaster of the shops, which often in persons with a delicate skin, or children, produces troublesome irritation. In the first dressing of a wound, especially if a large one, we find it useful to apply strips of plaster to support the sutures, and before their application, we should be careful to shave the parts if covered with hair, cleanse them thoroughly and dry them. When the isinglass plaster is employed, it should be cut into strips of an appropriate width and length, and then moistened on the glazed side with a wet sponge. When the ordinary adhesive plaster is used, it should be heated by placing the strips around a bottle of water, or placing them on a warm dish. In removing the strips we must always recollect to begin at *each end*, and having lifted up the strip until we reach the wound, we carefully turn it (the strip) upon its side, in doing which it is detached. I have frequently seen much mischief result from an ignorant surgeon's tearing off the plaster, holding *one end only* between his finger and thumb."

Lecture II. treats of *Injuries of the Scalp, of the Cranium, and of the Brain, Lacerated Wounds, Fissures of the Cranium, the Trephine and its Indications, and Illustrated Cases.* These subjects are all admirably discussed. With respect to the indications for the use of the trephine, Mr. Liston thinks that it is quite right to trephine when matter is forming, and before the patient has suffered from its accumulation; but that it is altogether wrong when there is no accurate indication of its formation, or no sign to lead to the seat of the collection. The surgeon should remove foreign bodies within reach, or loose and detached splinters of bone; and in deep coma from depressed bone, he should take means to relieve the important organ whose functions are thus interfered with, but no further.

As Mr. Liston does not speak of the operation of trephining in *epilepsy*, Dr. Mutter makes some remarks on the subject, and gives a very instructive and interesting case. Dr. M. thinks that the surgeon is authorized to perform this operation, whenever the disease can be traced to some affection or injury of the cranium, the evidences of which are still distinguishable. The case referred to is as follows:

> "*Epilepsy from Compression of the Brain cured by Trephining.*—David Black, æt. 27, three years since received a blow from a stick of wood thrown down a cellar, which caused a depressed fracture of the upper anterior part of the right parietal bone. No symptoms of compression being manifest, the injury was treated as a contusion, and the patient recovered without immediate difficulty, the depression still existing. Some three months after, the patient suffered from a slight epileptic fit, which, in the course of another month, was followed by a more severe one of the same character. Subsequently to this period, these epileptic attacks constantly augmented in severity and frequency, so that, at the expiration of two years from the occurrence of the accident, a week very rarely passed without a fit of such severity as to require the most prompt and copious bleedings, &c., in order to prevent a fatal termination.
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> "On the 6th of November, 1844, the patient presented himself at Prof. Mutter's clinic, at the Jefferson Medical College, for the operation of trephining, which was performed by the professor in the presence of his class. The operation was done with facility and speed, although the case presented great difficulty on account of the depth of the depression in the bone.
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> "Upon the removal of the portion of bone a prominent point was found upon its inner surface, which, with a membraneous layer of semi-organized lymph, had compressed and indented the brain. The patient expressed himself as *immediately* relieved from a sense of weight and tension in his head. A shred of lint was placed so as to project from under the flap, and the cold water dressing with the ordinary antiphlogistic treatment ordered. The patient speedily recovered, having had no recurrence of fits of any kind, and feeling better than he has done for two or three years.
>
> "N.B.—Sept. 5, 1845.—There has been no recurrence or any sign of a recurrence of fits up to this time, the patient being now a healthy man, supporting his family in good circumstances, which he was entirely incapable of doing before the operation."

The Lecture on *operations on the eye*, is a very lucid and instructive one, but we can only refer to it in the most cursory manner The editor has fully supplied everything that was wanting to render the chapter complete, and we would gladly quote his remarks on the operations of Strabismus and Staphyloma, did our limits permit. The chapter on *Cataract*, by Dr. Mutter, extending over thirty pages, we look upon as one of the most valuable essays on the subject in the language. It is clear and methodical, sufficiently full, yet precise, and abounding in practical precepts of the highest interest. The remarks on deformities of the nose are evidently the result of much experience and observation; the following note on the treatment of *Ozæna*, by the editor, is worth remembering.

"I have derived the greatest advantage in ozœna from the following inhalation, provided no active inflammation exists, in which case leeches, emollient applications, and the antiphlogistic treatment should be preferred.

"Take cinnabar, one scruple; white sugar, two scruples; mix intimately, and divide into twenty powders, one of them is to be used three times a day in the following manner:

"Prepare a half pound weight or bit of iron and heat it, *but not to redness;* place this upon a shovel, and then pour one of the powders upon the weight. As soon as combustion takes place, a small *glass funnel* must be inverted over the weight so as to collect the fumes, and then its pipe is to be introduced into the nostril. So directed, the fumes are carried to every nook and corner of the nasal cavity; and I have seen this remedy alone produce the most beneficial results. The decoction of Zittman, the iodide of potassium, and Donovan's solution, are all capital alteratives in this disease, and may be used alternately." (P. 165.)

For a full account of the *Taliacotian* operation, illustrated by cuts, and other modes of correcting deformities of this important organ, we must refer to the work itself. *Hypertrophy* of the nose is the subject of some judicious remarks, and we may remark *en passant* that we lately cured an aggravated case of this kind of long standing, the organ being of ominous size, and of a flaming crimson hue, by directing the patient to make frequent punctures and incisions with a lancet, rubbing in freely at the same time the ointment of the *iodide of mercury*, and taking the same with sarsaparilla internally. The case, however, was not exactly a parallel one with that figured on page 182, which looks somewhat as if an india rubber bag were suspended at the nasal extremity.

The operations for *hare-lip* and *cleft-palate* are treated at considerable length, and made exceedingly clear by means of the accompanying illustrations; we can recommend these sections alone as worth far more to the surgeon, than many times the price of the whole work.

The same remark will apply to the next lecture, on the *Diseases of the Antrum*, *Carious Teeth*, *Erected Tumors of the Face*, and *Solid and Encysted Tumors*. We know of no systematic work on surgery, in which the anaplastic operations for removal or remedying deformities of the face, are so fully and satisfactorily described, as in this.

With respect to operations for the removal of tumors of the lower jaw, Mr. Liston gives the priority to Dr. Cusack, of Dublin, who he says "led the way in the performance of this operation." (P. 297.) We regret that Dr. Mutter should have allowed this statement to have gone uncorrected, as the claims of Dr. Mott to priority in the operation are generally conceded. His letter in the November number of our Journal for 1845, would seem to set this question at rest.

With respect to the *mode* of performing it, the plan of J. Rhea Barton, as carried out in the following case by Dr. Mutter, is highly creditable to the judgment and skill of the operator.

"I have repeatedly removed large portions of the lower jaw for tumors of different kinds, and generally speaking, as with Mr. Liston, the operations have been readily executed, and given rise to but little subsequent inconvenience. I have never lost a case from the effects of the measure itself. A few days since (Nov. 1st, 1845), I had occasion to remove a very large tumor, which occupied the symphysis, and about two thirds of the left ramus of the bone. The operation was performed before the class, and proved exceedingly interesting from the circumstance of my being able to preserve the form of the chin and jaw, and also to avoid all scar about the face. The patient being seated with her head supported by an assistant, I laid bare the tumor in its entire extent, by detaching the lip and integuments of the chin and cheek from the adjacent bones. *No external incision was made*, and yet I had no difficulty in turning the soft parts down under the bone, so as to leave its base perfectly visible. I next, partly with a saw, and partly with a strong scalpel, cut through *the base of the tumor*, *leaving a small rim of bone composed of the rounded portion of the base of the lower jaw.* Two perpendicular cuts were then made (one on each side of the mass) with the cutting forceps, and the tumor thus loosened, was readily removed with a few strokes of the scalpel. As the hemorrhage was profuse, the actual cautery, and pledgets of lint steeped in creosote were applied, and with entire success. The lip was then brought back to its original position, and cold water dressing applied to the face; a perfect cure, *without the slightest deformity*, was accomplished in a few weeks." (P. 300.)

But we have already exceeded our limits, and can only say in conclusion that Liston's Lectures, with Mutter's additions, should be in every surgeon's library, and in every student's hands, who wishes to post up his surgical knowledge to the present moment.

Art. XII.—*Twenty-Fifth Annual Report of the Bloomingdale Asylum for the Insane; for the year* 1845. By Pliny Earle, M.D., Physician to the Asylum. Pamphlet. 8vo., pp. 48.

We here have another able and lucid Annual Record of the Medical History of this very important charity; exhibiting a most flourishing condition of the establishment, and demonstrating by unerring statements and figures, that it is still carrying out the benevolent designs of its founders, and fulfilling the great ends which called it into existence.

It appears that the past year was commenced with 104 patients (54 males and 56 females), and that since that time 138 cases have been admitted, 71 males and 67 females, making the whole number of cases under treatment during the year 242 (125 males, 117 females); of these 113 cases, 58 males and 55 females have been discharged; 7 males and 5 females have died; leaving in the asylum at the present time 117 patients (60 males and 57 females); of these discharged 61 were cured, 12 much improved, 20 improved, and 20 unimproved, being discharged at the request of their friends. Several who were believed to be curable, were prematurely taken away, thus losing the advantage which would have undoubtedly accrued from a longer residence in the Asylum. It also appears that the admissions in 1845 were 30 per cent. greater than in 1844, and 62 per cent. greater than in 1843. The deaths, however, have been fewer; having been 19 in 1843, 13 in 1844, and 12 in 1845. Deducting readmissions, or, not counting the same individual but once, there have been during the year 127 admissions, instead of 138—the greatest number (17) having occurred in November, and the least (4) in February. Dr. Earle truly remarks, that all cases readmitted during the year should be deducted from the whole number of admissions, to avoid erroneous results necessarily following from including the same person twice or more, and that all the statistics of insanity computed without such deduction are directly calculated to mislead. We fear that this caution has not been generally observed in making out the statistics of our different Insane Hospitals, and it is very desirable that new tables should be drawn up, on the plan pointed out by Dr. Earle. Delirium tremens, also, ought to be excluded, for this cannot be ranked with propriety under insanity proper. Excluding this, the forms of disease, in cases admitted at Bloomingdale during the past year, were as follows:—Mania, 65 ; partial, 11 ; moral, 2 ; melancholia, 22 ; dementia, 15 ; congenital imbecility, 2 ; delirium of phrenitis, 2 ; total, 119. Dr. E. classes under *partial mania* and *melancholia*, what are usually placed under *monomania*, which is a very rare disease ; nearly all persons called monomaniacs, having delusions or hallucinations upon a class or series of subjects. The exciting causes of the disease have, as usual, been reached under physical and moral, the former embracing 59 ; the latter 36 and 25 unknown. Of the former the most, intemperance, 7 ; self-abuse, 8 ; child-birth, 7 ; change of life, 8 ; injury of head, 4. Of the moral causes, the most operative were : pecuniary loss, disappointment, &c., 13 ; jealousy, 4 ; religious excitement, 3 ; disappointed affection, 3 ; political excitement, 3 ; &c. Dr. E. rejects the terms "hereditary" and "constitutional," in accordance with the belief that mental alienation is always induced by an exciting cause, even though the patient may have inherited a predisposition thereto.

Still, we believe, it would be useful to designate in some manner, such cases as may be supposed to have been hereditary, although the exciting cause be given ; as a knowledge of the extreme liability of such persons to insanity, would render them cautious in relation to exposure to exciting causes—and for this purpose, the facts must be spread before the public. In relation to the relative frequency of the two classes of causes, *moral* and *physical*, Dr. E. thinks that the latter predominates, although he admits the great difficulty, if not impossibility, of deciding in many cases, to which of these a particular case may belong. For example, a case may be attributed to intemperance, when the intemperance itself has been induced by a moral cause ; and so of cerebral disease, epilepsy, typhus fever, &c.

Dr. E. is of opinion that mental disorders are increasing in this country ; and that the exciting causes of insanity were never, in time of peace, more active, among any people, than at the present day among the inhabitants of the United States, and particularly so in the States which were the earliest peopled by European emigrants. Dr. E. very truly observes, that "intoxicating liquors are so cheap that the labor of a few hours will procure enough to addle the brain for a week, and prevent the healthy exercise of reason perhaps a much longer period. The avenues to wealth, place, and power, are open to all ; the child of the cottager thus entering into the strife of competition with the son of the most wealthy citizen. The progress of civilisation and refinement, and the comparative ease with which the products of both nature and art, in every quarter of the globe, are here obtained, have a direct tendency to foster a luxurious life. Hence human desires and human wants are greatly multiplied, while both mind and body are exerted to the utmost power of endurance to gratify the former and supply the latter. The almost unavoidable effect of the artificial mode of living, thus produced, is either a debility of the system or an augmentation of nervous excitability, either of which facilitates the invasion of mental disease." P. 12.

Again, Dr. E. observes :—

> "Art has made advances so rapid towards the annihilation of time and space,

that, if life be measured by the proper standard—the number of events, circumstances and conditions, seen, felt or perceived—the amount of pleasure enjoyed and of pain endured—the people of the present generation have an existence of ten-fold longer duration than their forefathers. As if this were not enough, the mind is forced into an activity corresponding with the new era of art. Children, before the body has acquired sufficient tone, or the brain sufficient firmness, to endure much mental exertion with impunity, are placed in schools where the intellectual faculties are unduly urged, while the physical exercise necessary to the development of the frame is too often neglected. Under such circumstances, the head will expand, but the body cannot grow in size or vigor sufficiently to maintain 'a balance of power.'

"If the child escape the more immediate dangers thus produced, he arrives at manhood with an unnatural susceptibility to mental excitement, as well as a predisposition to diseases of the brain, by what causes soever they may be induced. He enters the arena of life, and engages in the general struggle for advancement before alluded to. If a merchant, he is subject not only to the ordinary fluctuations of trade, but to those financial revulsions which appear to be consequent upon an unsettled policy of government, and an instability of the laws affecting commerce. Whatever may be his occupation or condition, he may become interested in some of the prevalent doctrines in politics, morals and religion, which are both maintained and opposed by a partisanship, a zeal, an enthusiasm, in many instances too nearly allied, it is feared, to madness."

Dr. E. gives us a table showing the duration of disease, when the patients were admitted, from which the most important practical fact deduced, is its influence upon the curability of the patient. Thus it appears, that of the recent cases admitted (68), 32 have been discharged cured, and of those that remain, 19 are believed to be curable ; while of the chronic cases (51), only 7 have been discharged cured, and of the remainder only 8 are considered curable. We have tables, also, showing the "number of attacks, and of admission," "ages at the time of admission, and at the time of first attack," "civil condition," "color of hair," "color of the eye," "temperament," "occupation of the males," "places of nativity and residence" (89 American, 30 foreigners ; 55 natives of New York, 32 residents of New Jersey), "delirium tremens" (10 cases, 1 death); "result of cases readmitted," "condition of patients discharged," "ages of patients discharged cured," "relation between the form of the disease and its curability" (of *mania* 50 *per cent. were cured* ; of *melancholia* 57 *per cent. ; partial mania* 25 *per cent. ;* and *dementia* 20 *per cent.*) ; "term of residence in the Asylum," "causes of death" (congestion of brain 3, acute phrenitis 1, paralysis 1, consumption 1, epilepsy 1, suicide 1, diarrhœa 1, marasmus 1. Total 11).

The general remarks of Dr. E., appended to his very able Report, are extremely interesting, and we would gladly adorn our pages with them, did our confined limits permit. We can only condense a few important items. Dr. E. lays down these three propositions, a knowledge of which, he thinks, should be widely disseminated in the community :

"FIRST.—*As a general rule, the first measure in the curative treatment of insanity, is to remove the patient from home, from acquaintances, and from all familiar scenes and associations.*

"SECOND.—*When the insane are placed under proper curative treatment in the early stages of the disease, from* 75 *to* 90 *per cent. recover.*

"THIRD.—*On the contrary, if they be not put under treatment before the disease has continued a year or more, from* 15 *to* 20 *per cent only are cured.*"

It would seem, from the following quotation, that the ancients understood the importance of the moral treatment of the insane, far better than many of the moderns :

> "The ancient Egyptians, three thousand years ago, removed their patients to temples where 'agreeable songs and melodious sounds perpetually charmed their ears, and gardens of flowers and ornamented groves furnished delightful walks and delicious perfumes. Every moment was consecrated to some diverting scene and amusement, which had a most beneficial result on the diseased mind; interrupted the train of melancholy thought, dissipated sorrow, and wrought the most salutary changes on the body through the agency of the mind.'
>
> "Although much of the superstition of the Egyptians, and many of the ceremonies of their mystic religion were mingled with these enlightened measures, yet, upon the whole, the treatment was far more rational than that which has been recommended by some high authorities in comparatively modern times, and among a people professing Christianity."

An impression very extensively prevails, that persons of disordered mind can be governed only through fear. Its incorrectness is happily exposed in the following passage :

> "Show the insane man that you feel an interest in his case, that you really consult his welfare ; that you will even submit to some self-denial or self-sacrifice to promote his interests, and, in nineteen cases out of twenty, you have secured a friend who will be the foremost to protect you from injury. There are but very few persons laboring under mental derangement, who cannot be approached as a brother would meet a brother. There is no place in all the earth where the infant can be more safely entrusted, than in most of the halls of a well regulated asylum for the insane ; and none where the little child is more petted and caressed."

Dr. E. states that religious services are regularly carried on in the Asylum, and that 198 patients out of 231 have attended some portion of time, the greatest number present at any one time, being 79 ; and adds that as great a degree of order usually prevails as in most assemblies convened for divine worship. Dr. E. thinks, moreover, that attendance at religious services holds an important rank among the means of moral treatment. A school is also regularly carried on in the establishment, in which the ordinary branches of an English Education, including Chemistry, Natural Philosophy, and Geometry, are taught ; and it is found to have the advantage of keeping a larger number of the patients under the influence of a curative discipline during a greater portion of the time than any of the other means of moral treatment.

In the autumn of 1844, Dr. E. commenced a series of Philosophical, Geographical, and Miscellaneous Lectures to the inmates of the Asylum, which he has continued to the present time except through the warmer seasons. The Asylum Committee have nobly seconded his efforts, and placed at his disposal an air pump, with its accompaniments, a set of mechanical powers ; a magic lantern, with numerous pictures ; an orrery ; an electrical machine, with its implements ; a pneumatic trough, reservoirs, retorts, and other articles used in Chemistry ; 164 diagrams painted on bleached muslin, illustrative of the structure of the human frame, and of that of the lower order of animals ; twenty similar diagrams explanatory of the laws and phenomena of light ; ninety-five diagrams illustrating various subjects. With these appliances, Dr. E. has gone over a wide range of most interesting subjects in chemistry, natural philosophy, and astronomy, describing many remarkable cities and places in the old world from his own personal observation; thus exciting the latent curiosity; rekindling the dormant spark of intellect in his hearers, and calling off their minds from brooding over imaginary sorrows; thus exerting a disciplinary restraint of the most salutary kind. Dr. E. deserves, as we think, great credit, for this new mode of moral treatment, and we hope to see the same introduced into other asylums of a similar kind. Dr. E. thinks that manual labor yields to none other in point of utility; promoting the appetite, sleep and general health, subduing excitement, while, at the same time, it amuses and occupies the mind. The principal amusements out of doors, are quoits and ten-pins; within doors, bagatelle, cards, chess, chequers, dominoes, reading, and a ball once a month during the cold season. *Restraints*, it appears, are entirely done away with at the Asylum, in the male department, and mostly in the female, and Dr. E. states that he "has no hesitation in asserting the belief that the patients have been more quiet and orderly under this general disuse of restraints, than they could have been with their constant use." The report closes with some very judicious remarks on the subject of "attendants," and the hope is expressed, in which we cordially unite, that "the time will come when persons will be specially educated for attendants, as teachers are educated in the normal schools, or as nurses are taught in France."

> "Although," says Dr. E., "insanity does not work so great a change in man as is popularly believed, yet its existence is greatly to be deplored. No palliation, no argument, no artificial gloss can entirely divest it of its deformity, or conceal its melancholy horrors. Beneath its sway Reason is deprived of her throne; the most glorious attribute of man is, for the time, destroyed; the distinctive characteristic of the human race obliterated. Yet often, in its most protracted forms, when years, both many and long, have rolled away beneath its influence; when the sands in the glass of time are nearly spent, and the flame of life is flickering towards extinction, the mind rises, superior to the power that has crushed it, and, like the sun at the close of a clouded day, shines forth in the brightness and beauty of its primeval lustre. And when this resumption of the throne of reason does not occur in life, it is a cheering consolation of the Christian's faith, that the trammels of earth—the diseases incident to mortality—cannot be borne beyond the grave."

Not the least important part of this valuable document is, the very full meteorological report, occupying seven very closely printed pages at the end. The only thing wanting to render it everything that could be desired is, a record of the *Dew Point*, which could be taken with little additional trouble, with Daniel's Hygrometer, and which we shall hope hereafter to see appended.

ART. XIII.—*Report as to the Finances and Management of the Seaman's Retreat.* January, 1846.

IT appears from this Report that the "Seaman's Fund and Retreat Hospital," on Staten Island, received from every source, since the year

1831, inclusive, something more than 420,000 dollars, and that their expenditures, during the same period, have somewhat exceeded 408,000 dollars: the value of the property now belonging to the establishment being estimated at 128,819 dollars, consisting of forty acres of land, a brick edifice, three stories high, and measuring seventy-six by thirty feet, intended and used as an asylum for lunatics; a hospital of hammered stone, three stories high, and finished in 1836, at a cost of 90,000 dollars; a superintendent's house, physician's house, barns, out-houses, and offices, together with the usual and necessary stores, medicines, implements, furniture and stock, appropriate to such an establishment.

During a period of thirteen years since this institution was opened, it has received more than 16,764 patients, of whom about 680 have died, and over 15,960 have been discharged, cured, or relieved. The hospital at present used for the accommodation of the sick and disabled, is calculated to accommodate 200 patients. On the first of January, 1846, there remained under treatment, 108 white, and 30 colored patients, of whom 13 are considered incurable. On the 31st December, 1844, there were in the hospital, 81 patients; and there were admitted during the year 1845, 1,320—making a total of 1,401 who received the benefits of the institution during the past year. Of this number, there were discharged cured, 1,071; relieved, 77; discharged at their own request, 60; died, 55; leaving in the hospital, December 31, 1845, 180. Of the number treated during the year, 315 had syphilis; 135 gonorrhœa (urethritis); 152 rheumatism; 41 phthisis; 97 fever of various kinds; 43 bronchitis; 38 asthma from fever; 36 asthma from intemperance; 24 abscess, &c. The average number cured was 84, 8 per cent.; relieved 6, 9 per cent.; discharged by request, 4, 7 per cent.; died, 4, 36 per cent. Average number of patients, 111. Average duration of treatment, 29 days. Of the 16,764 patients treated in the institution from the time of its opening, October 1, 1831, to December 31, 1845, 732 died; being but 4·36 per cent., which we regard as extraordinary success. It appears that by far the greater amount of mortality in the Retreat is caused by chronic diseases, which, from the class of subjects in which they occur, and the length of time which, in most instances, had elapsed prior to their admission into the hospital, are necessarily incurable.

This, we believe, is the only Institution in the country which offers a permanent resting-place to the merchant seaman; and when prevented by the slow inroads of the numerous organic diseases to which his life of toil and hardship exposes him, from following any longer his laborious profession, he naturally turns towards it as the only retreat which legislation has provided. Hence, while there is always a fair proportion of recent and acute cases in the establishment, the number of disabled, superannuated, and invalided ones, is continually increasing, no other provision having been made for them, after the four months to which they are entitled in the United States' Hospital, and which is the equivalent they receive for the twenty cents per month tax paid to the government. This hospital, as is probably known to our readers, is supported by a tax imposed by our State of $1 50 for every captain and cabin passenger, and $1 for every steerage passenger and mariner of foreign vessels, and twenty-five cents for every master, mate, and sailor of every coasting vessel, to be collected by the Board of Trustees of the Seaman's Fund and Retreat. At present there are several suits pending against the captains of different steamboats, plying between the port of New

York and other States, which have been commenced to recover the penalty imposed by law, for refusing to pay the Hospital tax. The defence interposed, denies the constitutional right of the State to lay any tax upon the masters of coasting vessels, who have taken out a license from the Federal Government. Should this defence turn out to be valid, the Seaman's Fund and Retreat will be deprived entirely of the means on which it depends for support, and the objects of its care will become charges upon the county. We believe there is no other provision made by law for sick seamen, except at the City Hospital, which receives annually, from the United States tax, $16,000, on condition that they receive annually, 100 patients, each of whom they agree to support, if necessary, four months, and no more; so that the number of sick and disabled seamen exceeding the stipulated number, together with all cases of chronic or incurable complaints, would, were it not for this hospital, be without relief; and if paupers, would necessarily have to be supported by the city and county of New York.

The Annual Report is drawn up in a very clear and satisfactory manner by the resident physician, W. C. Anderson, M.D. From a statement of the superintendent we learn that the resident physician has a salary of $900 per annum, with house, fuel, and vegetables. The assistant-physician has $800, with house and living for himself and family. The superintendent $900, with house and living for himself and family. Chaplain, $300 per annum. Secretary, $500 per annum. Collecting agent, $500 per annum, and 2½ per cent. on all moneys collected by him. Apothecary, $25 per month, &c., &c. These salaries are sufficiently liberal, perhaps, provided the physicians have the privilege of taking students, and giving clinical instruction in the hospital wards; if not, they seem to us on rather a moderate scale.

Art. XIV.—*On Diseases of the Liver.*—By George Budd, M.D., F.R.S., Prof. of Medicine in King's College, etc., with colored plates and numerous wood cuts. Phil.: Lea & Blanchard. 8vo., pp. 392. 1846.

Before the appearance of this very elaborate treatise, a good work on Diseases of the Liver was a desideratum; we mean one fully up to the times in the anatomy, physiology, and pathology of this organ. It has been said that the prevalence of hepatic affections has been controlled somewhat by fashion; yet it cannot be denied that diseases of the liver are at all times of not unfrequent occurrence, and it is no less certain that they are by no means easy of discrimination, or cure. This important disease has ever been made a *scape-goat*, by the superficial, the ignorant, and the quack, but, thanks to modern science and research, it is not likely to be so much longer. It is somewhat remarkable that so few treatises have been written, of late years, upon this class of diseases, important as they are universally admitted to be, while the press has been teeming with essays on diseases of the *nervous system*, the *chest*, the *kidneys*, the *skin*, etc. Is this owing to the trivial character of hepatic affections, or to our vague and unsatisfactory knowledge of them? With the author, we cannot doubt that the true cause is to be found in the latter. Owing to the color and texture of the liver, it is difficult to detect and define in the dead body the various effects of disease; unless, indeed, they have resulted in disorganization; whereas in the lung, whose texture is spongy and light, disease, even when slight, produces marked changes, so that we can readily discover and connect them with symptoms occurring during life. But in any solid organ, as the *kidney* or *liver*, which are nearly of the color of the blood, slight changes cannot be easily discovered; and various grades of inflammation and congestion might exist, and yet escape the eye of any but the practised pathologist, who is intimately acquainted with the minute structure of these organs. We see this fully illustrated in the fact, that *granular degeneration* of the kidney, a disease of a marked character, and attended during life with general dropsy and albuminous urine, was discovered only at a recent date; while the peculiar change attending it is still a matter of dispute among pathologists. Again, we can obtain but little information as to the physical condition of the liver during life. If the lungs be blocked up by lymph, or any dense material, we detect it at once by auscultation or percussion—we discover cavities in their substance; detect adhesions of the pleura, or the pericardial sac; ossifications and other diseases of the valves of the heart; thickening of its walls, or enlargement of the organ, but the *liver* can only be judged of in relation to its *bulk;* percussion enables us to trace its outlines, but leaves us entirely strangers to the changes going on in its interior structure. It may be said that even this is more than we can do in relation to the kidneys—but then the urine, its quantity, its quality, is a very important guide as to the manner in which their functions are performed. On the contrary, we cannot collect nor analyze the secretions of the liver; we are satisfied if we can say that the intestinal evacuations are tinged or not with the biliary fluid. It is true that we are able to recognize the presence of this secretion in the blood, bronzing or dyeing, as it does, the skin, and the adnata; and pointing to derangement of the organ, whose function it is to elaborate it; still, it must be admitted that our knowledge of hepatic diseases is extremely imperfect; our diagnosis uncertain; our therapeutics often unsuccessful, because tentative and empirical. Owing, however, to modern researches, two obstacles in the way of studying the diseases of the liver have been removed: 1st, we have obtained more precise knowledge of the composition and uses of the bile; and 2d, we have become acquainted with the intimate structure of the organs, so that, by the naked eye or the microscope, we can distinguish the various changes of its texture produced by disease. Our limits will not allow us to enter upon a consideration of these subjects, which ought to be familiar to every practical physician; but as they cannot well be illustrated in a brief space, or without illustrations, we must refer our readers to the admirable work which we are now noticing. Everything as yet known, relating to this important organ, will be found set forth by Dr. Budd, in his interesting volume, in the most clear and satisfactory manner, and we unhesitatingly assign to it the first rank among works relating to the class of diseases of which it so ably treats.

Art. XV.—*Half-Yearly Abstract of the Medical Sciences; being a Practical and Analytical Digest of the contents of the principal British and Continental Medical Works published in the preceding six months; together with a series of Critical Reports on the Progress of Medicine and the Collateral Sciences during the same period.* Edited by W. H. Ranking, M.D., Cantab., etc. Part II., Vol. I., July—December, 1845. pp. 373. New York: J. &. H. G. Langley, 8 Astor House.

The second volume of this most excellent "Abstract of the Medical Sciences" fully sustains the high reputation of the first, and establishes its character as one of the most, if not *the most*, practically-useful work of the day. We certainly know of none which, in point of interest and practical utility to the great mass of the profession, can compare with it, and such it is admitted to be by all who have examined its pages.

Those who read Ranking's "Abstract," will become informed of every discovery and improvement made in every department of medicine, surgery, and kindred sciences, and in all countries, up to the time of its publication, and this information can be gathered from no other single work extant. The critical reports alone are worth ten times the cost of the work, being prepared by some of the ablest writers in the profession. In the present volume, for example, we have an elaborate report on the progress of practical medicine, pathology, and therapeutics, during the preceding six months, by the editor (29 pages); a report on the progress of surgery, by H. Ancell, Esq. (42 pages); a report on the progress of midwifery and the diseases of women and children, by the editor (14 pages); report on the progress of anatomy and physiology (19 pages); report on the progress of physiological and pathological chemistry, by George Day, M.D. (37 pages); report on the progress of forensic medicine and toxicology, by W. H. Guy (23 pages); report on the progress of materia medica and pharmacy (19 pages). To all this, we have prefixed a complete abstract of what is contained in the medical journals of all countries, and a record of all works on medicine and the collateral sciences that have appeared since the issuing of the preceding volume. (Price fifty cents a volume, or one dollar a year, in advance.)

Art. XVI.—*A Practical Treatise on Healthy Skin, with rules for the Medical and Domestic Treatment of Cutaneous Diseases.* By Erasmus Wilson, F.R.S., Lecturer on Anatomy and Physiology in Middlesex Hospital, etc. With steel engravings. New York: Appleton & Co. 12mo., pp. 263.

Mr. Wilson is evidently one of those who do not think that all medical and physiological knowledge should be wrapped up in a dead language, and confined strictly to the ranks of the profession. As ignorance has been said to be the "mother of devotion in religion," so some physicians seem to act upon the same principle in medicine, and hold that ignorance is the real source of the homage paid to the cultivators of the healing art; hence we find some late writers attributing the weakened confidence of the public in medicine to the preparation and dissemination of popular works on anatomy, physiology and hygiene. If such must necessarily be the effect of imparting information to the great mass of the community relative to the structure, laws and functions of the human body, and, consequently, the *conditions* necessary to preserve it in health, then we say, at once, *so be it;* better that the profession be annihilated, than that its interests be maintained at the expense of the general welfare. But, fortunately, such is not the effect of enlightening the public mind on these subjects; on the contrary, nothing tends so effectually to cut up quackery, root and branch, than to impart to the community generally such an amount of anatomical, physiological and medical knowledge as will enable them to detect ignorance under the mask of science, and discriminate between the *professor* and the *possessor* of medical or surgical skill. How long, for example, would the ubiquitous Sweet family flourish if those whom they now persuade to labor under more dislocations than there are bones in the human body knew anything of the structure of their own frames. How long would the Thomsonians find victims for their infernal processes,—steaming, parboiling, etc., to say nothing of cayenne, lobelia, and "composition"—if the people understood the functions of the body, and, consequently, the danger attending such violent and incendiary measures. Every practising physician knows that his best patients are those who are the most intelligent, and that the greatest obstacle he has to contend with is ignorance, and the prejudices thence arising. With these views, we several years since prepared a work on physiology, for popular use, of which many thousand copies have been distributed over every part of the country; and the reflection that we have thus been instrumental in putting down quackery, by the dissemination of its antidote, *knowledge*, is one of the most cheering and gratifying reflections connected with our professional life.

We have made these remarks because we believe that many entertain mistaken opinions on this subject, and that it is the true interest of the profession to do all they can to enlighten and instruct the popular mind on topics relating to their physical welfare. If the science, or the practice of medicine, as now existing, cannot stand before such a concentration of light, then let them fall; the sooner the better; the time would soon come when they would be remodelled and rebuilt in a more substantial and durable manner.

The work of Mr. Wilson is constructed on the very principle we have pointed out; it aims to teach the reader the structure and uses of the skin, in the hope of awakening his attention to the necessity and manner of training it to the purposes of health; and, by laying down correct and simple laws, enables him to comprehend the principles upon which a sound and effective treatment of its diseases may be conducted. The author then takes up in succession *The Scarf Skin, the Sensitive Skin, the Perspiratory System, the Oil Glands of the Skin; the Hairs; Influence of Diet on the health of the Skin; of Clothing; of Exercise; of Ablution and Bathing; of Hydropathic Treatment; of the Rashes of the Skin: of the Eruptions of the Skin; of Warts and Corns; of Disorders of the Blood-vessels and Nerves of the Skin; of Disorders affecting the color of the Skin; of the Disorders of the Perspiratory System; of the Disorders of the Oil Glands and Tubes; and of the Disorders of the Hair and Hair-Tubes.* Of the manner in which these subjects are treated, we can speak in the highest terms of praise.

Art. XVII.—*Elements of Pathological Anatomy, illustrated by colored Engravings and* 250 *Wood Cuts.* By Samuel D. Gross, M.D., Professor of Surgery in the Medical Institute of Louisville, Ky., etc., 2d edition, thoroughly revised, and greatly enlarged. Large 8vo., pp. 822—Barrington & Haswell, Philadelphia : 1846.

We stated in our last number, the appearance of a second edition of this invaluable work; and we can now do little more than repeat the announcement. The work will not admit of analysis, and we can therefore only reiterate the opinion formerly expressed, that it is the most complete and useful systematic work on Pathological Anatomy in the English language. What renders the work particularly useful to the student and medical man is the attention paid in it to the normal characters of the various organs and tissues. The author has evidently not adopted the opinion of a late writer, that pathology has nothing to do with anatomy or physiology, but has gone upon the supposition throughout, that it is impossible to obtain distinct conceptions of the numerous and diversified alterations produced by disease, except by knowing the natural color, weight, volume, and consistence of healthy structure. He is right in assuming that the sources of fallacy and deception are so numerous, as to often lead even the experienced physician into error—causing him to consider as morbid, what is perfectly healthy, and *vice versâ.* When we consider that *principles of treatment* are often based on these mistakes and misconceptions, their injurious tendency becomes too obvious to require comment. Prof. Gross has also added greatly to the value of his work, by tracing in many instances the *causes* of the morbid changes described, as well as the *symptoms* connected with them, thus making it not merely a treatise on morbid anatomy, but one on general and special pathology. In this respect we believe it differs from other works of a similar kind, and hence has advantages over all others to the practical physician. The work deserves and must find a place in the library of every medical man, who aims at the character of a scientific or successful practitioner of the Healing Art. The colored engravings and wood cuts are exceedingly well executed, and the entire getting up of the work does much credit to the enterprising publishers.

Art. XVIII.—*Third Annual Report of the Managers of the State Lunatic Asylum.* January, 1845. 8vo., pp. 61.

The late period at which this report has been received prevents our giving as extensive a notice of it as we would wish. Like all the other reports of Dr. Brigham, it is characterized by good sense, a thorough acquaintance with mental diseases, and a philanthropy ever awake to ameliorate the moral, intellectual and physical condition of this unfortunate class of our fellow-beings.

There have been in the Asylum during the year 553 patients; 282 men, and 271 women, admitted during the year 293, discharged 268, of whom 135 were discharged recovered, 78 improved, 34 unimproved, and 21 died, leaving remaining at the end of the year 285, 143 men, and 142 women.

The whole number of patients received into the Asylum since it was opened, 16th Jan., 1843, is 844; whole number discharged 559. Of this number 320 have been cured, 139 improved, 46 unimproved, 44 have died. Of the whole number admitted 509 have been supported by towns or counties, 325 by their friends. Dr. B. observes that "the good which an institution for the insane accomplishes, is not to be judged of, wholly by the number of cures effected, as, perhaps, as great an amount of good is done by giving comfort and enjoyment to a large class of incurable cases, who, but for it, would have passed their time in wretchedness in alms-houses or in jails, or in wandering about exposed not only to want and to the inclemencies of the seasons, but to the insults and the abuse of the thoughtless and the vicious. This, together with the relief an asylum gives to the friends of the incurably insane, from watchful nights, and from incessant noise and disturbance, and in many cases from the most anxious fears for the safety of their unfortunate relatives, leads us to regard such institutions, irrespective of the cures they effect, as among the most valuable."

The management of the Asylum is not particularized in the present report, it having been fully noticed in the last. The subjects treated of by Dr. B. are *The Farm and Labor; Religious Worship; Schools and Diet; The Prevention of Insanity; Neglect of the Study of Insanity by Physicians; Predisposing Causes of Insanity; Exciting Causes, and Asylums for Idiots.*

Dr. B. is of opinion that much may be done for the improvement and comfort of idiots; that many, instead of being a burden and expense to the community, may be so improved as to engage in useful employments, and to support themselves; and also to participate in the enjoyments of sanity. "Idiots," says Dr. B., "exhibit different degrees of intelligence. While some possess no more knowledge or capacity of acquiring it than the brutes, others exhibit considerable intelligence or aptitude to acquire particular kinds of knowledge. They are capable of learning trades and to read, and of being taught music. Some are particularly interesting from the simplicity of their manners, quick observation and witty remarks, as we know from the history of those times, when it was common to have such at the court of kings." Schools and asylums have been established in other countries for the benefit of idiots, and Dr. B. recommends that similar institutions should be opened in this State by legislative authority, for the same benevolent purposes. The subject is undoubtedly one that must commend itself to every patriot, philanthropist and Christian.

Art. XIX.—*Fourth Annual Report to the Legislature, relating to the Registry and Return of Births, Deaths and Marriages, in Massachusetts.* For the year ending April 30th, 1845. By John G. Palfry, Secretary to the Commonwealth, with a letter to the Secretary, by Lemuel Shattuck, Esq. Pp. 106.

"The true greatness of a State," says Lord Bacon, "consisteth essentially in population and breed of men." If there is any one subject which pre-eminently demands the attention and solicitude of statesmen and legislatures, as well as of individuals, it is that which relates to the physical condition, in connection with the general welfare, health and longevity, of all the members of the community. When regarded in its most comprehensive aspect, its importance will be found second to none in relation to the physical and mental happiness of man. It affects his health and longevity. It involves the intellectual and corporeal power, and consequently the *capacity for the production and progression* in *every* art or science in which a human being can engage, of individuals, families, communities, and states.

With a sound and healthy body, and surrounded only by these agencies and circumstances which the God of nature has given him in abundance and purity, to sustain and invigorate him by their natural and unalloyed powers, man does indeed feel the " fullness of his strength ;" and the very labor which he delights to perform, and from which he cannot restrain, becomes itself a pabulum of life, while it carries him onward to a nobler and higher condition of being.

But with a physical machinery deranged and enfeebled ; encompassed by agencies which cannot afford him the means of vitality in their greatest purity and strength ; breathing a vitiated atmosphere and scantily protected against the changes of climate and seasons ; the energies of his mind become depressed and weakened, and he loses the ambition, or at least the power, of personal and political advancement, and progression in civilisation. It is vain to accumulate the treasures of science upon intellects whose physical powers are impaired and burdened with sickness or deficient energy, and the value of a brilliant genius is lost to a weak and laboring frame. And not to it only ; for the genius and intellect of a man are given him not for his own purposes merely, and their good influences are not confined to himself; but they are given him for the benefit, advancement and glory of his fellow-creatures, and upon them falls the greatest portion of the loss.

The constrained gregariousness in which it is the habit and necessity of man now to live, gives rise to totally new conditions of his physical being, and developes laws and influences over his health and life, which were before unknown or disregarded. This is not the case merely in those places in which we find him collected in the greatest numbers and density, as in large cities. Were this the case, all sanitary regulations might safely be left to the discretion of the minor local governments, to be guided and enforced by circumstances as they arise. But in the more sparsely settled localities, there are numerous general causes of sickness and mortality prevailing, affecting the condition of families and individuals, and demanding, equally with those of denser districts, the supervision of legislation.

The relation which the physical condition of the citizens of a State bears to its advancement in wealth and civilisation has been commented upon and illustrated by several writers, and the aphorism with which we have commenced this article has been fully proved, in argument, if not in fact and example. That the improvement of the " breed of man" as a principal means of obtaining " the true greatness of a State," has been seriously and almost wholly neglected, requires scarcely any proof; one has but to cast his eyes abroad over the community to see the inferiority of the breed of his neighbors, and the tomb-stones of the adjacent graveyard will tell the mournful tale of the premature mortality of three quarters of the human family within his own circle of habitation.

> "This subject has merits which should command the attention of the statesman and political economist. All investments to preserve or increase the public health, would be reimbursed many fold, in an increased capacity for production. One of the most important items in a nation's wealth consists in the healthfulness and vigor enjoyed by its people. All agriculturists and manufacturers must feel the force of this remark in regard to their own workmen; and they would feel it still more, if they were obliged at their own expense to support those workmen during all periods of sickness or incapacity to labor; and this is the relation in which the State stands to its citizens. It has been said by some writers on political economy, that from one-seventh to one-eighth of all the wealth of a country originates in the *labor of each year*. Hence, if any nation or community should cease from production for seven or eight years, the whole of its wealth,—houses, lands, goods, money—would be consumed. What a forcible idea of the value of labor is presented by this fact! Yet, what a sick workman or operative would be to a capitalist who was obliged to maintain him, a sick citizen is to the republic. Every sick man, every man rendered unserviceable by general debility, or specific ailment, must be subtracted from a nation's available resources. He not only adds nothing to the common stock, but he draws his subsistence in some form—and often, too, a very expensive subsistence—from the storehouse which the industry of others has filled."*

And are not the laws which regulate, and the influences which control, the health, and lives, and destinies of men, fit objects for inquiry by the government?

The State of New York has expended nearly half a million of dollars in the laudable work of a natural history survey, by which it has ascertained how many kinds of beasts, birds, and fishes, roam or fly over its hills and valleys, or swim in its waters; a careful census has been made of the varieties of butterflies, reptiles, &c., within its boundaries, and of the different genera of its plants; developments have been made of the character of its soil in the various sections; of the structure of its foundation down deep as human ken could reach; and in every other department the ablest minds, and most skilful experimentalists and philosophers have been employed. The result is a work which would be an honor to any country. Again, there are individuals and associations, laboring with indefatigable zeal in the departments of agriculture and mechanics, trying how much can possibly be produced from a square yard of soil, or what amount of human labor may be dispensed with by invention after invention of new machines. Others again are investigating the important subjects of where and how sheep may be best and cheapest reared, hogs fattened, and cattle maintained and improved. Such labors are all commendable and highly useful, "but," asks Mr. Shattuck, in reference to his own State, and we may apply the question more forcibly to our own, "where is the sanitary map, which points out the healthy and unhealthy localities in the State, which will reveal to our people where and how *human life* can best be sustained and longest continued, and where and how human energy and productive power can be best brought to bear upon the culture and development of the sources of wealth in the State? Have we not said by such legislation that our cattle and our hogs are of more value than the lives of ourselves and our children? Have we not extended to the brute, whose worth is measured by dollars and cents, a species of legislation which has been withheld from man, who is of immeasurable value? When compared to investigations into the physical condition of man, all other investigations dwindle into insignificance."

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* Horace Mann, Sixth Annual Report of the Board of Education, Massachusetts.

Our last State census, not yet published, will give us an enumeration of the citizens, with the relative number of the whites and blacks, the deaf, dumb, blind and insane—as well as the value of the agricultural products, the horses, cattle, lands, and tenements, but for the "true greatness of the State," for the health, life, and longevity of the people, there is no care, no legislation.

Again we ask, is there no necessity for such legislation? Is the condition of the people so good that government need exercise no supervision over it? Are the laws of life and health so well established, and a knowledge of them so generally diffused, as to render any further investigation of them unnecessary? Let a few facts answer.

When the law for Registration of Deaths was established in England, Liverpool was generally believed to be one of the healthiest towns of the kingdom—but it was proved to be almost the worst. As soon as the startling fact was announced that her inhabitants were dying faster and earlier than in any other quarter, an inquiry was instituted into the causes of the mortality. A sanitary survey was made which soon brought them to the light, and now, after the application of the proper remedies, the disgrace is wiped from her escutcheon, and the "breed" and condition of her population, together with their health, lives, and happiness, are preserved and improved. Though it is with humbled pride, truth compels us to lay before the people the following statement, from one of the most eminent vital statists of England, contained in a letter to a friend in New York. By this it will be seen that the condition of our own people, so generally believed to be equal or superior to those of other countries in the matter of their health and long life, has been totally misapprehended, and that the inhabitants of Liverpool, bad as it was, were not more deceived than we now are. He says—

> "In a communication from the American Statistical Society at Boston, they say it is necessary to take some steps to warn the community against falling into the evils which afflict the old towns of England. On summing up the returns which they have sent me, I find that they *have* fallen into those evils deeper than any whole communities in England, bad as I have shown them to be. *In Boston, the average duration of life appears to be lower than in Liverpool.* The town of Lowell, *which is praised for its excellent health, presents the most ghastly results of any I have met with.* One year the average age of death appears to have been as low as sixteen,—in the worst town in England I have met with, it is twenty for the whole community. In Liverpool, the average age of death after twenty is forty-eight. In Lowell it is in one year as low as thirty-seven. The infantile slaughter is worse even than in Manchester—as bad as in its cellars."

Thus it seems, while, as a people, we have lulled ourselves into a fancied security, and thought ourselves exempt from the devastation of life and strength, which afflicts our transatlantic neighbors, at the same time that we have done nothing to ascertain whether our hypothesis was real or supposititious, we are even in worse condition than their worst. While straining every thought and muscle to increase our stock of wealth, the heavy chains of disease and premature death are dragging us unconsciously backward; we are toiling to ascend to the hill-top of refinement and civilisation, but continually retarded, or forced back, Sisyphus-like, by the weight of our burden; or like Prometheus, striving to precede and outwit the world, with the vulture unceasingly gnawing at our vitals, which "are never diminished though continually devoured."

There are many who, no doubt, will be disposed to question the correctness of the statements of the extract just given, and will attempt their refutation by pointing to the clear blue skies, the more invigorating atmosphere, the better and more abundant food, the greater freedom from oppression and taxation, the rapid increase of population, the greater liberty of body and mind, under which our citizens live and prosper.

But for our own State, we answer, there are *no statistics* to show how long we live, whether a less or greater time than the inhabitants of England or France; nor to show what proportion of our increase of population is domestic or foreign manufacture; nor what may be the expectation of life of different classes and trades; nor the relative duration of life in city or country. The few returns which have been made by our more enterprising neighbors in Massachusetts, have been used, as we have just seen, to the disadvantage of their name and condition. But how stands the Empire State? Is she, in this respect, really entitled to her motto "Excelsior." For aught we know, her people may be in as bad, if not worse, condition than others. We want statistics to prove, either that she has a better "population and breed of men"—or if she has a worse, we wish to know it, that the means may be adopted for their improvement; and that thus she may be sure of possessing the elements of "true greatness."

The means by which the information necessary for these great purposes is to be obtained, are—

1st. A sanitary survey for the State, upon principles and arrangements similar to those upon which the Natural History survey was based.

2d. A registration of births, marriages, and deaths for the State.

The first, if undertaken by capable and judicious men, would occupy time proportionate to their facilities and necessities of inquiry and observation, and might, doubtless, be completed in less time than was required for the survey of Natural History.

The second must necessarily be continual, as the progression and fluctuations of the race call for continual observation and study.

Time and space prohibit elucidation here, *in extenso*, of the particular advantages that would result from a careful and complete collection of facts, and a full and judicious deduction of inferences therefrom, under such legislative enactments as are herein contemplated.

The commonwealth of Massachusetts has the honor of being the first of the United States to profit by the example of the "Father Land," where this kind of work has been carried on for many years back, with the most beneficial and important results.

There seems, however, some imperfection in the law of Massachusetts, as, though this is the fourth Annual Report, there is a supposed deficit of one half the number of births and deaths which actually took place in the State, and of three quarters of the marriages.

Various reasons are stated by the returning officers, to account for this deficiency. The most important deficiency, however, relates to the city of Boston, which makes no return whatever, which "is particularly to be regretted, not only because it contains a seventh or eighth part of the population of the commonwealth, but because the peculiarity of the position and occupation of its citizens is connected with questions of special importance in relation to vital statistics." In view of these omissions, it is unnecessary, as it would be unprofitable here, to go into any examination of the actual or relative number returned.

We have some amusing reasons given by the returning officers (town clerks), in apology for the meager numbers sent in. One says :—

> "I have solicited the clergymen for a list of marriages, the sextons for an account of deaths, and the school committee for births, more frequently and with more earnestness, than good manners would always justify ; and when the information comes, it is often contained on a small scrap of paper, sometimes without dates, and always without method or order."

Another :—

> "I find in such cases, they almost always recollect the names of their grandfathers, but do not know whether they ever had any grandmothers or not.
>
> "But one returned, the committee thinking the trouble of ascertaining too much for the pay.
>
> "The clerk perambulated the town to obtain the materials of his return, and states that it would be cheaper to pay the fine of $10, than make the requisite returns and copies. * * * 'We have no sexton in Granby.'
>
> "It occurred to one, that very few members of the legislature who enacted this law, were ever *town clerks*, or ever intended to be. * * * The Reverend gentlemen do not make their returns as they should do."

The hope and expectation are, however, generally expressed, that as the importance of the law becomes more extensively understood, full returns will be readily made out and transmitted to head-quarters.

The Tables of the Report are five in number, viz :—

Table I.—1. Abstract of the Returns of the Births.
2. Births ; plurality cases.
" II.—1. Abstract of the Returns of Marriages.
2. Conditions and Ages of Parties to Marriages.
" III.—1. Abstract of the Returns of Causes of Death.
2. Classification of the Causes of Death in the several counties.
3. Abstract of the Returns of the Causes of Deaths in the years 1842, 1843, 1844, 1845.
4. Stillborn Cases (whole number reported, 102).
" IV. Facts Illustrating the Influence of Occupation on Longevity.
" V. Facts Illustrating the Influence of Domestic Condition on Longevity.

The most interesting, as well as valuable part of the document before us, is the "Letter to the Secretary, from Lemuel Shattuck, Esq." Mr. S. has been for several years past a collector and student of vital statistics. He brings to the investigation of this important branch of science, a mind of high philosophic character, a good general knowledge of human physiology, plenty of patience, and a correct appreciation of the bearings of the subject upon the interests and future condition of mankind. His letter of 40 pages is written in a condensed, yet clear style, and is in part devoted to an exhibition of the necessity for the enactment of laws, founded upon the facts and philosophy of vital statistics, for the preservation of public health and life, against the influences which are constantly at work impairing the one and shortening the other, if the people would improve their condition, and elevate themselves in the scale of civilisation and prosperity.

He has made an excellent argument on the subject by appropriate quotations, and by illustrations from the statistical returns of his own and other States, which we would commend to the attention of our legislators and statesmen. They will find in this letter a just and clear view of the bearings and valuable considerations connected with this too much neglected science, one of the dearest to humanity.

We are compelled to close our notice of the report and the subject, by referring to a few of the tables of summaries prepared by Mr. Shattuck.

He divides the whole community into three great classes. 1. The dependent class; 2. The productive class; 3. The aged class. The first consists of all under 15 years; the second, those from 15 to 60; and the third, those over 60. "The first and third classes combined may be called the *burdensome class,* and the other the *productive class.* The word *productive* is here used as applied to labor, in contradistinction from idleness or inability. One class are producers and the other consumers." "By the census of 1840, it appears that to every 10,000 persons there were

	Under 15.	15 *to* 60.	*Over* 60.
In Lowell, . . .	2,500	7,368	132
In Illinois, . . .	4,762	5,045	193

That is, while Lowell has 2,500 dependent upon every 7,368 for support, Illinois had 4,762 to 5,045 for support; showing from the ages alone, that the productive energies of the one more than doubled those of the other." This is not given as a fair comparison of the two *States* of Massachusetts and Illinois, for Lowell is well called a "remarkable instance." We quote it in illustration of the mode of comparing the energies and prosperity of one people with those of another. We are told that while the whole United States had 52.35 per cent. of the population of the productive class between 15 and 60, Massachusetts had 59.65 per cent., and England had 56.70; showing this State to be better situated than either, in this respect.

Proportion of Twin, Triplet, and Quadruplet Births.

In 1844, there was 1 case of twin birth to 123 cases of birth.
" 1845, " " 1 " " " 129 " "
" 1844, " " 1 " triplet " 7,261 " "
" 1845, " " 1 " " " 15,444 " "
" 1844, " " 1 " quadruplet 15,523 " "
" 1845, " " no case of "

Of one of the tables of deaths (P.) it is remarked:

> "One of the first ideas presented by this table, is the remarkable increase of infantile mortality within the four past years, being from 1157 to 1762, or 605; over 6 per cent. * * Are we aware that 1762 per cent. of all the deaths are of children under one year old? * * * * Such developments should arrest the serious attention of parents and all concerned, to ascertain and remove, if possible, the destructive agencies at work among us, on this class of human beings."

The following table, showing the influence of occupation upon longevity, is highly interesting:

Occupation.	1842.		1843.		1844.		1845.		Total.	
	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.
Farmers . . .	660	66	706	66	663	64	645	61	2673	64
Physicians . .	7	61	25	57	27	54	20	56	79	56
Clergymen . .	14	55	22	55	18	51	11	50	65	53
Lawyers . . .	12	56	5	53	7	44	7	49	31	51
Teachers . . .	9	38	16	37	14	33	21	29	60	34
Blacksmiths . .	34	57	35	59	31	50	45	52	145	54
Carpenters . .	95	62	99	48	76	51	79	52	349	53
Painters . . .	12	41	8	42	21	41	10	41	51	41
Shoemakers . .	104	46	113	48	110	39	134	41	461	43
Laborers . . .	193	49	171	51	158	50	208	49	735	49
Seamen . . .	176	39	199	43	128	37	131	42	634	42
Tailoresses . .					7	41	16	40	23	41
Dress Makers .					3	25	11	30	14	29

We are warned by the printer to stop writing—and we must bring our observations on this vitally important subject to a conclusion, for the present, by expressing our gratification in beholding in this, and the preceding documents from the same source, the evidence of the spread of intelligence and enlightened legislation, upon subjects pertaining to the true interests of man, and the ardent hope that the Empire, and every other State in the Union, will speedily follow the honorable example of their sister Massachusetts. J. H. G.

Art. XX.—*An Introductory Lecture, delivered by* Gunning S. Bedford, M.D., Prof. of Midwifery and the Diseases of Women and Children, in the New York University Session, 1845–6. 8vo. Pp. 16.

Professor Bedford's reputation as a writer and popular teacher, is too well known to need endorsement at our hands. In the present lecture, he discourses learnedly, feelingly, and *con amore*, of the duties, aims, and responsibilities of the practitioner of the obstetric art, and he depicts in his usual daguerreotype style, some painful scenes which he has been called to witness, which are calculated to make a durable impression upon the mind, and illustrate the importance of a perfect acquaintance with this department of our science. We regret that our limits do not allow of quotations, and a few extracts would only do injustice to the writer.

Foreign Medical Intelligence.

PART THIRD.

ANATOMY AND PHYSIOLOGY.

1. *Traumatic Paralysis of the Forearm.*—A man about 40 years of age, of a good constitution, robust, and of general good health, engaged as a clerk in a store for the sale of woollen goods, had occasion to raise a heavy piece of wet merino, weighing about 160 pounds. Suddenly he perceived that his right hand failed him and fell powerless to his side, whilst at the same time he experienced a numbing sensation in the forearm of the same side. Since then his hand and forearm have remained paralyzed. Some weeks have already elapsed, and, as yet, there has been no change whatever. On examination, the hand and fingers are found to be in a state of semi-flexion, capable of being slightly acted on by the flexor tendons, but it is wholly beyond the power of the patient to extend them. The skin of the hand and arm is insensible, no sensation being experienced by pinching, or inserting pins; this insensibility is limited strictly to that part of the arm below the elbow. The arm and such of its muscles as are inserted into the forearm, are in a perfectly healthy state, but all the muscles which go from the forearm to the wrist and fingers, are entirely paralyzed. The whole arm appears to be well developed, and presents no abnormal appearance other than a small soft protrusion or tumor about the middle and on the internal and anterior face of the forearm; it is about the size of a large egg, and is thought to be a hernial protrusion of one of the muscles, occasioned by a rupture of the anti-brachial aponeurosis, caused by the effort made in attempting to raise the weight, which gave rise to the accident. The patient complains of nothing; there is no pain at the back of the neck, at the shoulder, in the axilla, nor in the arm—indeed nowhere along the course of the brachial plexus. Monsieur Blandin, being unable to account for this paralysis in a satisfactory manner, has repeatedly questioned and cross-examined the patient as to all the circumstances attending his accident, but as yet has succeeded in obtaining no other information than that already communicated. For fifteen days, since his admission to the Hôtel Dieu, large blisters have been repeatedly applied around the elbow and to the upper part of the forearm. Strychnine has been applied to these blistered surfaces, but no good has up to the present time ensued from their use. These negative results, and the dead-like condition of the forearm, lead to the conclusion that not much is to be expected from those already resorted to, and similar applications. This is one of the unfortunate cases in which medicine appears to be fruitless, and requires for the elucidation of its true character, that new experiments and researches should be made. M. Blandin states that this is the first time that he has met with this species of paralysis—a declaration that is sufficient to authorize the conclusion that it is exceedingly rare.—*Annales de Thérapeutique.*

2. *Analysis of the Blood.*—We deem it in the highest degree useful for the practical physician to be able to analyze the blood and other animal fluids, if he expects to treat diseases successfully. The follow-

ing simple method of proceeding we take from a recent number of the British and Foreign Medical Review :—

1. A glass containing exactly 1000 grs. of water is filled with blood directly from the vein; a glass stopper fitting hermetically is then inserted (care being taken to remove all bubbles), and the specific gravity of the blood is ascertained. By continually shaking it the blood is kept fluid; it is then poured into a porcelain vessel, and evaporated, care being taken to wash the glass out with distilled water, and add the latter to the other. The quantity of solid residue is reduced to the proportions in 1000 grains of blood. 2. A glass two and a half ounce measure, is filled with blood immediately after the preceding, covered and set aside for eighteen hours. The clot is then carefully separated from the serum, and the weight of both ascertained. 3. The clot is now to be pressed through a linen cloth four inches square, and first the fibrin, then the fluid cruor collected. Each is thoroughly washed, freed from moisture, and weighed; they are then carefully dried and again weighed. The results are to be reduced to the proportion in 1000 grains of blood. 4. The serum and clot are to be placed in a glass containing 360 grs. of distilled water, and their specific gravity noted, then 250 grs. of each at the same temperature are to be dried so long as they lose weight; the weight of the residuum is then to be reduced to the proportion in 1000 grains. There is a loss of weight by pressure through the linen, but as this will happen in the same proportion in all instances, the general results are correct.

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3. *Ætiology of Diseases of the Heart.*—Dr. Flogel thinks that among the determining causes of cardiac disease, immoderate, long continued, or even only momentary bodily efforts, especially of the muscles of respiration, of such kinds as interfere with the free performance of respiration, have not received the attention their importance deserves. He gives five cases in which the patients referred their cardiac symptoms to muscular efforts, and insists on the importance of these facts in reference to prophylaxis.—*Ed. Med. and Surg. Journal.*

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4. *The Phenomena Attending the Inflammatory Action of Membranes.*—The capillaries are all on one side of the membrane, and yet the serum and lymph are on the other; the capillary vessels in healthy action have no power in themselves of throwing out any of their contents. They do not secrete in virtue of any power inherent in themselves. Do they acquire this power during inflammation? Or will any of the hypotheses of effusion account for the lymph and serum being on the free surface of the serous membranes, and so little, if any, in the subserous textures? I do not see how we can, in the present state of the science, account for phenomena of this kind, by referring them to actions of the extreme vessels. We must look for an explanation, I am inclined to believe, in a disturbance of the forces which naturally exist in the extra-vascular portions of the inflamed part.—*Goodsir.*

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5. *Bright's Disease of the Kidney.*—In a recent communication to the Medico-Chirurgical Society of London, Dr. Johnson has attempted to show that an increase of the fat globules, existing in the cells within the uriniferous tubes, is the morbid change which occurs in Bright's disease; that this change is the result of constitutional causes; and that this deposit is *the cause*, and not *the result*, of the congestion of the kidney, which finally leads to the presence of albumen in the urine. Drs. Quain and Williams, however, maintain that it is the deposit of a badly organizable and cacoplastic matter in the cortical substance and within the tubes of the kidney. This deposit generally takes place in an unhealthy system as the result of congestion, produced either mechanically as by diseased heart, or by some irregularity in the function of the skin. The same effect may be produced by the circulation of stimulants, as alcohol, with the blood. Those conditions, diseased heart, perspiration suppressed by

cold, or by experimentally coating the surface with substances, impermeable to this secretion, and intemperate habits, are constantly found associated with albuminaria.

According to Dr. Quain, whose opportunities of observation have been great, the deposits in the kidney assume the following characters:—1. The *simple enlarged mottled kidney*, the surface of which, on removing the capsule, is generally smooth. In this, the deposit consists of simple nucleated cells more or less mixed with granular matter. This form is analogous to the hypertrophied mottled liver. 2. The truly *granular or atrophied kidney*, the surface of which is rough, irregular, and generally of a pale reddish color. In this form, the filamentous tissue, contracted in its nature, as such formations always are, exceeds the quantity of the cellular or granular matter. This latter sometimes extends to the convoluted extremities of the tubes. The contractile tissue surrounding the tubes and bodies can be readily supposed to give rise to the rough or granular formation. This form resembles the hob-nail, or gin-liver. 3. The *large, flabby, fatty-looking kidney.* In this, the quantity of fat exceeds the amount of the other matters present. The fat is present in the substance, and probably in the tubes themselves. This resembles the fatty degeneration of the liver. These are the *three principal forms* this disease assumes, but there may be many minor modifications of these produced by the relative proportions in which these deposits are present.

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6. *New Gland in the interior of the tip of the Tongue.*—A German physician, Dr. Nühn, has lately discovered and described a gland in the interior of the tongue. It may easily be seen by removing the mucous membrane from a slightly elevated elongated oval space, which is always seen about two lines from the median line, on the under surface of the apex of the tongue; this exposes a layer of longitudinal muscular fibres; we then reflect, or remove some of the fibres, which form part of the inferior lingualis, and the anterior fibres of the stylo-glossus, when the gland is seen just under the canine artery, outside the expanding branches of the lingual (5th) nerve, just anterior to the edge of the hypoglossus. The gland measures from seven to ten lines in length, from three to four and a half in breadth, and from one and a half to two and a half in thickness, agreeing in the structure and general aspect with the labial, lingual, and other similar glands. It has many ducts, which open through the mucous membrane over it, by irregularly placed orifices, each of which is surrounded by a slightly elevated ring. It is believed to be a mucous gland, and has been found in no other animals than man, and the orang.

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MEDICAL PATHOLOGY AND PRACTICAL MEDICINE.

7. *Pathological Appearances in a remarkable case of Phlegmasia Dolens.* By M. Barnetche, Bourdeaux.—After giving the history of a case attended with some remarkable symptoms, Dr. B. details the following post-mortem appearances, which we regard as very valuable, being, so far as we know, the most minute of any on record. The patient was confined on the 2d December, 1844, and died on the 23d of the same month.

"Dissection. *External appearance.*—The body, opened eighteen hours after death, exhaled a strong fetid odor of animal matter in a state of decomposition. The inferior extremities were much swollen and infiltrated. There was gangrenous ulceration over the sacrum; the bone was of a dark grey color, and filled with pus to the depth of two centimetres. On dissecting the cutis from the right limb, the cellular tissue was found attenuated, of a greyish color, soaked in liquid, and dissolved as it were in serum. The popliteal and inguinal glands were enlarged and hard, of a whitish-grey color, and several contained pus; the mesenteric glands were likewise found enlarged, some in a state of suppuration. The left limb was nearly œdematous; no pus was found in the cellular tissue, nor were the lymphatic glands enlarged. There was evident hardness and redness of the right axillary glands.

" *Cranium.*—The brain, cerebellum, medulla oblongata, corpora striata, and thalami, were all in a normal state. There was no serum in the ventricles, but a small quantity of a citron-yellow fluid was found between the pia mater and arachnoid, streaked here and there with blood, and small quantities of a fluid pus. The optic nerve, on emerging from the thalami, exhibited no change of color, but its density was remarkable, creaking under the scissors; there was no infiltration of serum in its sheath. The mucous membrane of the palpebræ and globe of the eye had shrunk; it was of a yellow color, and the fluid which exuded appeared to be contained in separate cells, but communicating with each other; several layers were removed by means of scissors. The globe of the eye was hard, and with difficulty compressed; a dirty yellow color was reflected through the transparent cornea, now become dull; on opening it with caution, purulent matter escaped from the anterior chamber, the vitreous humor being replaced by a considerable quantity of greenish pus; neither the color nor transparency of the lens had undergone any alteration; the same may be said of the fatty cushion on which the globe of the eye rests.

" *Chest.*—Two cavities, of the size of a centimetre (five lines) each, were found in the superior lobe of the right lung; they contained pure pus; at a short distance from these, were two globular bodies, of a cretaceous nature, something like tubercle; there was well-marked engorgement of the posterior part of this lobe; as a whole, it was of a deep red color, and when cut into slices it sunk in water. The inferior lobe of the left lung was almost completely hepatised. There was a small quantity of serum in the left pleura. The heart and pericardium were natural.

" *Abdomen.*—The peritoneal coat of the intestines was slightly thickened, especially towards the lower end of the ileum, and over the cœcum, which was much injected. Several red spots were scattered here and there, and in the points corresponding to these, the mucous membrane was soft and easily detached, leaving the walls of the intestine very thin and transparent. The stomach, kidneys, and bladder were natural. Spleen somewhat enlarged, and of a deep red color; over its surface were scattered patches of a greyish tint; it was soft, and easily broke down under the fingers. Liver large and very dense. On the superior surface of the right lobe, a deep brown patch was discovered, under which there lay a clot of blood, whose diameter in all directions was about half an inch. No other alteration was perceived in the organ.

" *Uterus.*—The uterus was of the normal size, but soft to the touch. The ovarian tubes were red: the ovaries themselves tumefied, and softened, and covered with a layer of pus, but without any notable alteration in their substance. On examining the interior of the uterus, its surface was found coated with a species of pap, consisting of decomposed blood and pus. This was also found in several of the veins or sinuses. The tissue of the uterus had lost all its consistency, and, by moderate pressure, gave forth a sanious serosity.

" *Articulations.*—The pubic and sacro-iliac articulations were healthy.

" *Circulatory Apparatus.*—Heart and arteries normal.

" *Veins.*—A large clot of blood, found in the right auricle, extended upwards into the vena cava superior, and downwards into the vena cava inferior. Its total length was about 16 centimetres (5 inches). A second clot was found in the inferior cava, which extended into the primitive iliac veins, and produced obliteration in the latter, to the extent of about a foot (30 centimetres). Another clot was found in the right popliteal vein, containing a thick layer of pus in its superior portion; these clots obstructed the calibre of the veins, and, in some points, adhered to them. The internal membrane was, as it were, detached, and adhered to the cloth employed to wipe the surface. The veins of the left limb appeared healthy, as did also those going to the globe of the eye."—*An. de Ther.*

8. *Turpentine in Purpura Hemorrhagica.*—The *Edinburgh Monthly Journal of Medical Science*, for December, 1845, gives the history of two very interesting cases of purpura treated by large doses of turpentine. Dr. Neligan states that "it acts as a powerful cathartic, also possesses the property of checking hemorrhage, depending on an atonic state of the smaller blood-vessels, owing, probably, to its powers as a diffusible stimulant. In consequence of those views, I employed this remedy in the four cases that afterwards came under my care while in charge of the district, and they all recovered. I prescribed the oil both in the form of draught and of enema; the usual dose for adults being from one ounce to an ounce and a half, and for children from two drachms to half an ounce, generally in combination with castor oil, to render its cathartic action more certain.

"Since that time I have employed oil of turpentine in every case of purpura which has been under my care, and its use has been invariably attended with beneficial results."

9. "*On the danger of using certain washes in cases of Ulceration of the Cornea.* By Dr. Cunier.—We have already directed the attention of practitioners to this matter, by pointing out the serious consequences which may ensue from indulging in the common practice of uniting laudanum with the metallic salts of lead, silver, zinc, copper, cadmium, &c., in preparing collyria. From such combination, says the skilful ophthalmologist of Brussels, an insoluble meconate is precipitated, which, by the shaking of the wash when it is about to be used, may be brought into contact with the eye, and become incrusted in the ulceration of the cornea. The result of some recent experiments instituted by Dr. Cunier, at the request of M. Boyer, established beyond doubt the fact, that this decomposition does in reality take place, and that the accidents likely to arise from it are such as were previously indicated by the experiments. That, in fact, the precipitate formed by the addition of laudanum to washes made with the sulphates of zinc, copper and cadmium, is less abundant than in those made with the acetate of lead or nitrate of silver; nevertheless, in the quantity in which it is produced, it suffices to cause incrustations in the membrane, when used for ulcerations of the cornea.

"In concluding his article, Dr. Cunier indicates a very simple means for avoiding this difficulty. It consists in taking the precaution, when ordering these collyria, to combine the metallic salt with a salt of morphia *of the same acid*; for instance, the acetate of morphia with the metallic acetates; the sulphate of morphia with the metallic sulphates, &c., &c. In this way the same clinical result is obtained, without the patient being exposed to the serious consequences which may arise from incrustations."—*Gazette Médicale de Paris.*

10. *Contagiousness of Puerperal Fever.*—In the Edinburgh Monthly Journal of Medical Science, for December last, there is a highly interesting paper by Dr. Peddie containing a series of cases illustrative of the *contagiousness of puerperal fever, and its intimate connection or association with erysipelatous and phlegmonous inflammation.* We have not room to give a detailed history of Dr. Peddie's cases; the animal poison producing the death of several puerperal females originated, as was supposed, in a case of *gangrenous erysipelas* (in a gentleman), spreading from sinuses surrounding the hip-joint, which took their origin from a mismanaged bubo, while attending the puerperal cases. Dr. Peddie also attended several cases of erysipelas, phlebitis, and peritonitis, which he supposed

had the same origin, viz. infection from the above malignant case of erysipelas. The conclusions to which Dr. P. arrives, and which we have no doubt are well founded, are the following:—

"1. That a specific virus, of an animal nature, is produced under certain circumstances, and in turn generates a peculiar form of fever in the puerperal state.

"2. That that virus frequently originates from erysipelatous inflammation.

"3. When once generated, it may be communicated from one lying-in patient to another with extraordinary virulence, quite independently of locality or epidemic influence, either by direct intercourse, or through the medium of a third person; and that this is more likely to happen where the predispositions of a weak body and a depressed mind exist.

"4. That it may also produce disease of various kinds in non-puerperal individuals,—more especially of an erysipelatous and phlebitic character.

"5. That the treatment of a contagious puerperal fever, whether directed by theoretical opinions, or the indications of physical signs, proves of little avail; but that if any theory is to be entertained respecting this malady, it should be, that something of a specific and morbific nature requires to be thrown out of the system, and the powers of life at the same time sustained; and that the practice which holds out the greatest prospect, small at best, of this being accomplished, is the adoption of the diaphoretic and stimulant plans, according to the stage of the disease.

"6. That the principal concern of the medical man should be (seeing that a cure is so rare), to adopt every conceivable precaution against the occurrence of a single case of the disease, or to lessen the risk of its propagation when once established in his practice. And to attain these ends, patients in childbed should either not be attended at the same period with cases of malignant or severe erysipelas, or that proper caution should be observed as to ablutions, more especially after contact with any discharge from such patients; and when a case of puerperal fever does occur,—lest it should be something more than sporadic,—chlorinated ablutions and change of garments is first required; and should a second case occur, it would be the safest plan for the practitioner to abandon the practice of midwifery for a time,—two or three weeks, if possible, and in the interim attempt, by removal into the country, warm baths, and other alterative and purifying means, and by the exposure of clothing to a free atmosphere or a high temperature, to rid himself of the subtle and powerful virus which adheres to him so tenaciously."

OBSTETRICS AND DISEASES OF FEMALES.

11. *Influence of Ergot on the Fœtus in Utero.*—Dr. Beatty has arrived at the following conclusions, in reference to the influence of ergot on the fœtus:—

"That the administration of ergot to a woman in labor is attended with danger to the child whenever a time sufficient for the absorption and transmission of its noxious properties elapses before the child is born. The *degree* of effect produced differs with the time that elapses between the exhibition of the dose and the birth of the child. Hence the ergot should never be given in any case where there is a likelihood of the labor lasting more than two hours after its administration, except when it may be employed to save the mother's life. Secondly,—if delivery is delayed two hours, we should resort to artificial assistance to save the life of the child."—*Dublin Journal.*

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12. "*Successful Ablation of the Womb.* By Dr. Michalowski.—A woman, twenty-two years of age, was delivered of her first child thirteen months since;

the accouchement was followed by very violent pains and a considerable hemorrhage. This bloody discharge was never wholly arrested, and, being accompanied by pain which resisted all treatment, was rapidly exhausting the patient.

"On being consulted in the case, Dr. Michalowski found in the vagina a pyriform tumor, painful on pressure, and which he at first supposed to be a polypus, for which he recommended *astringents* and cauterizations, with the acid nitrate of mercury. A subsequent and more careful examination led to the conclusion that it was an inverted uterus. The tumor was examined by means of a large glass speculum, when it was perceived that the blood oozed out through two small and regular apertures, opposite to one another, and corresponding exactly to the situation which the orifices of the fallopian tubes should occupy.

"The patient was terribly exhausted, and in imminent danger, and it was resolved to remove the tumor. The operation was performed on the 11th of May. A few hours after having been bled (with the view of producing a revulsive effect, and detracting the blood from the uterus), the patient was placed in the position usually selected for the application of the forceps. A museux tenaculum was inserted into the tumor, which was drawn down by moderate traction until projected beyond the vulva, when the section was made with great rapidity, and with a pair of curved scissors. The operation occasioned but little pain, and the hemorrhage was but trifling; a few hours after, the pulse, which had previously been as high as 120, was reduced to half that number. There was a sensation of coldness about the lower part of the abdomen, which it was very difficult to relieve with warm applications; and it did not cease altogether until the second day, when the pulse became again accelerated. It returned, however, to its usual rhythm about the eighth day, at which period it was considered safe to allow a little nourishment, and likewise a change of bed. Fifteen days after (the operation?), the patient went to the country. She revisited the operator, however, in December, at which period she appeared to be perfectly well, with the exception of some undecided pains about the loins and in the breast. On examining by the toucher, the neck was found to be so well cicatrized that it was almost impossible to ascertain at what point the section had been made. The tumor, when removed and divided longitudinally, presented, in a very small and anormal cavity, the foldings of the serous membrane, which, hard, thickened, and of a fibrous texture, were drawn together like the neck of a purse."—*Journal de la Societé de Médicine Pratique de Montpellier.*

MEDICAL CHEMISTRY, MATERIA MEDICA, AND PHARMACY.

13. "*Treatment of Baldness and Falling out of the Hair.*—Dr. Wilson recommends for falling out and loosening of the hair, to immerse the head in cold water, morning and night, to dry the hair thoroughly, and then brush the scalp until a warm glow is produced. In women with long hair, the scalp is to be brushed until redness and a warm glow are produced, then wet the roots of the hair with one of the following lotions: I. ℞. Vinegar of cantharides ℥ss., Eau de Cologne ℥ij., rose water ℥j., M.; or, II. Eau de Cologne ℥ij., tinct. cantharides ℥ss., oil of nutmegs ʒss., ol. lavender, ten drops, M.; III. ℞. Mezerion bark ℥j., horse-radish root ℥j., boiling distilled vinegar, Oss. Let it stand for a week and strain. If the lotion produce smarting or tenderness, the brush may be laid aside, but if no sensation is occasioned, the brushing should be resumed, and a second application of the lotion. This treatment should be practised once or twice a day, or at intervals of a few days, according to the state of the scalp; namely, if tender, less; if insensible, more frequently. The same treatment will prove successful in *baldness;* which, if it happen in patches, the skin should be well brushed with a soft tooth-brush, dipped in distilled vinegar, morning and evening. If either of the above lotions proves too irritating to the skin, use it in smaller quantity and less frequently. No. III. may be diluted with more distilled vinegar. Oil should be used to keep the skin soft and pliant."—*On Healthy Skin, p.* 257.

14. *Sulphuret of Potassa.*—In the notice of Cazenave and Schedel, on "Diseases of the Skin," in our last number, the reviewer is made to say that the Editor, Dr. Bulkley, recommends the *sulphate of potassa* in some forms of *acne.* It should read the *sulphuret*, etc.

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15. *Singular Property of Albumen.*—"Professor Uunderlich remarked that any albuminous fluid loses the property of coagulating by heat, when the free alkali contained in it is neutralized by a few drops of nitric or muriatic acid. Even if a slight turbidness should result from the addition of the acid, this disappears on heating the liquid.

"*Remarks.*—We have observed a similar effect on the addition of acetic acid to an albuminous fluid; but it appeared to depend on the quantity of albumen present. It was long ago shown by Magendie, that when acetic acid was added to serum, the mixture might be heated without coagulation taking place. It merely became opaline; and on cooling, if not too dilute, it became solid; on again heating it, liquid."—*Med. Gaz., Aug.* 22, 1845.

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16. *Test for Sugar in Urine.*—"Liebig recommends the following:—Evaporate the urine to the consistence of syrup; treat with alcohol; then to the solution add an alcoholic solution of potash; if sugar be present, a white precipitate is formed, consisting of a compound of sugar and potash; wash this with alcohol and dissolve in water; thus a saccharine solution is formed, which may be examined in any way, and if required, the amount of sugar determined quantitatively."—*Lancet, Sept.* 6, 1845.

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17. *Oxide of Silver.*—This preparation, introduced into practice as a substitute for the *nitrate* by Dr. Lane, appears to be gaining in favor with the profession in Great Britain, and is undoubtedly a very useful article in some forms of dyspepsia, in chronic gastritis, and nervous irritability. There can be no doubt, however, that if its use is sufficiently protracted, it will, like the *nitrate*, blacken the skin, as it is taken into the circulation; and from its affinity for chlorine it must decompose the salts of chlorine in the blood, and be gradually deposited in the cutis in the form of an insoluble chloride, which will become black on exposure to the light. It probably differs from the *nitrate* in the latter being more readily absorbed, as well as more readily decomposed. The best form of administration is that of *pill*, combined with rhubarb and extract of conium. It may also be combined with inspissated ox-gall, or the extract of chamomile or gentian, with some essential oil, or with Castile soap or ipecacuanha. When genuine, the oxide of silver is of a light brown color. Sir James Eyre, however, recommends giving it suspended in some fluid, and states that although he has thus used it in several hundred cases he has as yet never blackened the skin, and heard of but two cases in which this result followed. We have lately had an opportunity of seeing a young lady whose entire surface is of a bronze or dull leaden hue, from having taken for more than a year about three grains per day of the nitrate of silver. She says that when her old acquaintance call on her, who are not acquainted with the cause of discoloration, they immediately get the idea that she must be cold or chilly, and advise her to warm herself. The appearance is much like the *blueness* caused by cold.

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18. "*Amygdalin and Emulsin.*—M. Morin, in a recent paper read before the Medical Society of the Canton of Geneva, Switzerland, states that *amygdalin*, a proximate principle, consisting of oxygen, hydrogen, carbon, and azote, is found only in the bitter almond, while *emulsin* is found both in the bitter and sweet almond. All mixtures of *amygdalin* and *emulsin* in water, give rise to the immediate formation of the essence of bitter almonds and prussic acid. The therapeutic properties of laurel-water depend upon its containing a quantity, unfortunately variable, of *prussic acid.* Liebig has proposed to substitute for the laurel-water an ounce of almond emulsion, mixed with 17 grains of amygdalin. M. Morin finds this proportion of amygdalin too strong, and proposes only 12 grains of that substance, and asserts that the mixture will yield 5½ grs.

of the essential oil of bitter almonds, and 5½ grs. of medicinal prussic acid, which is equivalent to 2-3ds of a grain of anhydrous prussic acid."—*Brit. & For. Rev. for Jan.*

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19. "*Extract of Tobacco in Neuralgia.—Extractum nicotianæ* will cure neuralgia so that it will not return again, and this with once using. I, but a few weeks ago, gave some of an aqueous solution of this extract to Mr. H— (aged between 30 and 40), who was on business at Hampstead, and who was then, and had long been, suffering from *tic douloureux.* His wife, whom I have since seen, informed me that he had only occasion to rub it on his face once, which relieved him, and from that time he had no return of it: and likewise that three or four persons, who were laboring under the same complaint, had also used it, and experienced similar relief. I have known it to cure toothache speedily with once rubbing on the face."—*Lancet, June* 28, 1845.

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20. *Capsules for Medicines.*—Capsules have recently been introduced for the administration of certain nauseous medicines, as castor oil, balsam copaiva, turpentine, etc. They are composed of animal membrane instead of *gelatine*, and are pliant and soft in the mouth, easy to swallow, and do not dissolve, so as to allow their contents to escape, until they have passed into the small intestines. We look upon them as highly useful and convenient, as they enable us to administer some articles, which without them would not be retained on the stomach.

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21. "*Treatment of Warts.*—The hydrochlorate of ammonia dissolved in water, and the hydrochlorate of lime, are the most certain means of destroying them; the process in both instances is very slow, and demands perseverance."—*Lancet.*

TOXICOLOGY.

22. *Poisoning by Strychnine.*—The following case of poisoning by Strychnine, we copy from the Edinburgh and London Surgical Journal, for Dec., 1845.

"Agnes French, aged 13. September 27, 1845. Has been in this house since the 16th instant, for eczema capitis, which is now nearly well.

"About half-past five P.M., swallowed three strychnia pills, which belonged to a paralytic patient in the same ward. Each pill contained a quarter grain of strychnia. She has been occasionally in the habit of taking medicines belonging to other patients. Twenty minutes after taking the pills, she said she felt a strange sensation in her head, and became almost immediately convulsed. The clerk was called, and visited her without loss of time. The following was her state. The arms were found extended and rigid, as also were all the muscles of her body, which was bent backwards at a considerable curve. Pupils were natural. Pulse was obscured from the rigidity of the muscles, but impulse of the heart was strong. Face was much flushed and lips livid. Breathing rapid and difficult, but larynx quite free,—spasms of diaphragm very marked. Every few minutes she had a fit of general convulsions. The mind was quite entire, and great fear and anxiety for relief were expressed.

"The cause at first being unknown, six ounces of blood were abstracted from the temporal artery. Cold lotions were applied to the head, and sinapisms to the extremities. Ten minutes after the symptoms began, the owner of the pills told the cause, when a scruple of zinc was immediately given, and large draughts of warm water, which were eagerly swallowed by the patient. No vomiting, however, was induced for about a quarter of an hour, although the fauces were tickled with a feather; and when the emetic operated, it acted very sparingly. All this time the opisthotonos and universal muscular twitchings had continued most violent; but now, during one of the ineffectual attempts to vomit, the rigidity of the muscles suddenly relaxed, and the spasmodic contractions ceased. The heart's impulse, previously strong, could not now be felt, and respiration was for the time extinct. Her face, which, from the commencement of the attack, had continued deeply flushed, became gradually pale, from above downwards; her lips remaining livid. She was laid down, and seemed to recover slightly; her chest heaved slowly, and her heart beat feebly, and at long intervals. The flush also somewhat returned to the face, but with the exception of a few twitches, she had no recurrence of the spasms. The pupils were now dilated—the eyes fixed and turned upwards. The stomach pump was suggested, and immediately applied, but without any good effect. In a short time the respiration again ceased, and the heart could no longer be felt. The flush, which had been but slight, again descended and disappeared on the neck. Artificial respiration, and galvanism to the phrenic nerve, were now tried in vain. The patient was dead. Death took place at three-quarters past six P.M., little more than an hour after the poison had been swallowed, and in about three-quarters of an hour after it had produced its physiological effect.

Autopsy forty-four hours after death.—Face placid, abdomen tympanitic, much lividity of depending parts. Post-mortem rigidity of body in general moderate, but fingers and thumbs very livid, half-flexed, firm, and somewhat elastic. Integuments of scalp bled freely on being cut. Brain and its membranes quite natural, excepting turgescence of velum interpositum and choroid plexus. Spinal cord healthy,—its investing membranes rather vascular. Lungs much congested with venous blood. *Muscles of the heart quite stiff. The right ventricle was flattened into a sharp edge, and was quite empty. The left ventricle was also collapsed and empty. The auricles were in a similar condition.* The stomach contained a half-digested meal. Its mucous lining was pale and natural. Other viscera normal.

MISCELLANEA.

23. " *Pathology and Cure of Gout.*—Dr. Robertson states that the lithic acid diathesis presents itself under two forms, or rather has two modes of manifesting itself. In the one, the acid and its compounds escape in the urine; in the other, they are deposited in the tissues above named. The author, accordingly, seems to consider gout, or the gouty diathesis, essentially to consist in a morbid tendency to the deposition of uric acid or its combinations, and in a ' much disordered condition of the tissue in which it is formed.' Dr. Robertson thinks it not improbable that the acid, though, as constituting gouty concretions, or chalk stones, always found in a combined state, is originally deposited pure, and gradually takes soda from the blood. ' This,' he says, " would seem to explain the immediate deposition of lithic acid where it is formed, and likewise, that other alkalines besides soda are often found combined with it, although in comparatively small proportions, soda being the principal alkali of the system.' He elsewhere restates this view, and expresses it as his opinion that the irritation of the capillaries of the fibrous tissues, caused by ' the throwing down of crystalline particles of lithic acid, or of its compounds with alkali,' may be the true cause of gouty inflammation.

" ' As to the treatment of gout,' says Dr. R., ' it will be found that the condition of the urine, judged of *pure*, has little to do in regulating or modifying it, however valuable it may sometimes be, when looked upon as subsidiary to other treatment.'

" Leeching, he observes, as well as the lancet, or cupping, are seldom of the slightest use in simple gout: they may do harm, but do no good. Purgatives and diaphoretics, he states, to be the evacuants to be chiefly depended on, and he might have added diuretics, a free action of the kidney being nearly as indispensable as a free action of the bowels. The hostility of Sydenham to purgatives both during the gouty paroxysm and the interval, is well known. The author does not entirely adopt on this subject the opinion of the great authority just named, neither do we. In a multitude of cases of gout, both during the paroxysms and at intervening periods, judicious regulation of the bowels, we do not say violent purging, is of evident use, as far as our observation extends. The purgatives must not, indeed, be cold and drastic, but warm, cordial, and what is called stomachic. The author justly discountenances the addition of narcotics to purgative medicines; the union is at once irrational, useless, and pernicious. Colchicum, so far as it is a narcotic, is to be excepted from this remark. We have not yet brought ourselves to regard it as a narcotic at all, but attribute the abatement of pain which it often affords, both in gout and rheumatism, to its setting suspended reactions free, as, for example, the biliary and the urinary. Its lowering of the heart's action we refer to the same cause.—*Brit. and For. Review.*

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24. *National Statues to Distinguished Medical Men in France.*—M. de Salvandy, the Minister of Public Instruction, in his speech before the Medical Congress, recently assembled at Paris, thus alluded to the honor about to be paid to some of the chief physicians of France:—

"Let me avail myself of this opportunity to inform you that one of your wishes has already been satisfied. The National Gallery of Versailles, which is dedicated to all the glories of France, would be incomplete were it not to contain the medical discoverers? At this very time, the brush of the painter, and the chisel of the sculptor are at work, engaged in reproducing the figures of your great men, a list of whom I myself presented to the illustrious monarch, who watches with solicitude over the welfare of the country. You will thus not only find in our national gallery, the portraits of the warriors who have defended or aggrandized France, but you will also find represented the features of your ancestors—of those who have honored France by their science, who have been your predecessors, who are your models, and who find among you so many imitators."

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25. *Animalcules in the Oil-tubes of the Skin.*—The following information may possibly be new to some of our readers:—

"The animalcule of the skin," says Mr. Wilson, "is found in the oil-tubes, whenever there exists any disposition to the unnatural accumulation of their contents; it is found in number varying from one or two to twenty, in the interior of the little grooved cylinder, which is squeezed out by pressure of the fingers; and this in an apparently perfect state of the health of the skin, if it can be said to be in health when its functions are performed in a torpid manner. Now, as in the majority of mankind, and certainly in all the inhabitants of cities and large towns, the skin is more or less torpid in its functions, so the presence of this animal in the skin is the rule, its absence the exception; I have found it in all ages, from youth to old age, more numerously, it is true, at the latter than the former period, and in great and remarkable numbers during sickness. Under these circumstances I see no other conclusion open, than to assume that it performs some beneficent purpose in the economy of the skin, that purpose being, according to my belief, the disintegration of the over-distended cells, and the stimulation of their tubes to perform their office more efficiently. In corroboration of this view, is the fact, that these little creatures increase in number when the vital powers decline, so that when the energies of the system are reduced by disease, and when the skin, participating in that reduction, is unable alone to fulfil its functions correctly, these little beings are produced to aid in the work."

The British and Foreign Review objects to the name *Entozoon Folliculorum*, by which Mr. Wilson designates this animal, and says that "it unites the characters of the higher annelida, or worm-tribe, of the lower arachnida or spider-tribe, and of the lower crustacea or crab-tribe, to such a degree, that it is yet doubtful which class ought to afford it a place. The investigator of the history of this parasite need certainly be in no lack of *subjects* for examination, for, strange to say, it is one of the most readily procurable of all living beings, especially in a town-population. Here, as elsewhere," continues the writer, "we see how nature manages to compensate one class for the exemption they may enjoy from the evils incident to another. The delicate town-bred lady of fashion, in ascending from her carriage, shrinks instinctively from the mass of rags, filth, and vermin, which is brought into contiguity with her precious person by some pertinacious beggar, ignorant all the while that her sebacious follicles give board and lodging to a host of parasites, whose number may equal that of the various kinds of 'small deer' that nestle in the matted hair and tattered garments of the fellow being whom she regards with so much loathing. 'Where ignorance is bliss, 'tis folly to be wise.'"

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26. *Potatoe Disease.*—From a series of researches, Dr. Ure has arrived at the following general results:

1st. That the disease consists in the conversion of a portion of the starch into saccharine matter, and of the albumen into a nauseous acrid principle, which, together, cause the expressed juice of the potatoes to putrify most rapidly; but that if a little yeast be mixed with the juice, a vigorous vinous fermentation is immediately commenced, and a proportion of alcohol formed in the course of two or three days, which, reckoned in proof spirits, is equivalent to five per cent. of saccharum in the potatoes. The spirit distilled from the fermented expressed juice, is by no means unpleasant in odor or taste; but that which is obtained from the macerated sliced potatoe liquor partakes, in these respects, somewhat of the rank and sickly flavor of the acrid principles above mentioned. "Did the feudal despotism of our excise laws," says the Lancet, "permit the inhabitants of this 'free' country to convert the diseased potatoes into spirit, using the residual cake, in which there can be nothing that is deleterious, as good 'conservative' food for cows and hogs, as much alcohol might be formed from them as would suffice for every purpose of medicine, pharmacy, the arts, and manufactures, leaving the corn for the sustenance of a temperate population."

2d. Dr. Ure considers the plan of dusting *slaked* lime over the potatoes, as prescribed by the three Irish commissioners, to be eminently objectionable. Such lime being already saturated with water, it cannot tend to keep the tubers dry, but, with a little moisture, would act powerfully in decomposing all vegetable and animal matter. When placed dry, in a perfectly dry atmosphere, potatoes may be preserved during any length of time; and this advantage can be readily obtained by piling them on a bed of brush-wood and straw, interspersing among the pile *unslaked* lime, coarsely bruised, and then covering them up well on the top and sides, from the external elements, either in a house or proper pit. Thus, an arid atmosphere being maintained around each potatoe, the vegetable will not be affected by the dry lime, which, also, during its slow spontaneous slaking under such circumstances, will disengage a genial warmth, to counteract the effects of the winter's cold. Dry lime does not corrode the vegetable matter; nay, it will not even combine with chlorine, the most energetic of chemical principles, although slaked lime does so most intensely.

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27. *Hospitals in the city of London.*—From the Medical Almanac, or Calendar of Medical Information, for the year 1844, we extract the following account of the London hospitals :—

"1. *The University College Hospital* (founded 1827), with 150 beds. 2. *King's College Hospital* (1841), with 130 beds. 3. *Guy's Hospital* (1721), 500 beds. 4. *St. Bartholomew's Hospital* (1539), 530 beds. Out-patients 30,000 annually. 5. *St. Thomas' Hospital* (1553), 500 beds. 30,000 patients annually. 6. *London Hospital* (1746), 320 beds. 1600 patients treated annually. 5503 accidents admitted, 1843. 7. *St. George's Hospital* (1733), 240 beds. 8. *Middlesex Hospital* (1745), 200 beds. 9. *Charing Cross Hospital* (1831), 150 beds. 10.

Westminster Hospital (1719), 200 beds. All these hospitals have medical schools connected them, with *museums*, dissecting rooms, and some of them, as St. Bartholomew's, have several houses within the hospital walls fitted up as a collegiate residence for a certain number of students. We thus have a grand total of 2640 beds, or hospital accommodations for this number of patients, who are all accessible to students, in a population of about 1,600,000.

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28. *Effect of warm Climate on Pulmonary Disease.*—It is a very fatal error for medical men to imagine that mild and warm climates can effect a cure of thoracic diseases. The cold and humidity, which generally are the determining causes of these effusions, doubtless aggravate their symptoms; but when the mischief has reached the second stage of its career, atmospheric heat almost always does harm instead of good, and very generally accelerates the fatal issue. It is the same with phthisis as with all chronic maladies that are attended with hypertrophy, or engorgement of the parenchymatous, or membranous viscera.—*Braithwaite.*

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29. *Mode of preventing Pitting in Small-pox.*—[Some years ago, Dr. Corrigan was struck by observing that no part but the face and hands ever bore marks of pitting from small-pox. As it could not depend upon anatomical structure, it occurred to him that it was dependent upon the natural moisture of the rest of the body keeping the skin soft until the new skin had had time to form under the pustule.]

"Acting on this idea, I determined, he remarks, to apply something over the entire face, which should completely protect the pustules, and prevent their exposure to irritation of any sort, until they were detached by the formation of new skin underneath. For this purpose, the application which suggested itself to me as likely to answer best was lead plaster, melted with as much almond oil as would allow the compound, when moderately heated, to be spread over the face with a camel-hair pencil, and, when dry, to form a perfect mask of consistent firmness. This application can only act beneficially on the principle of oiled-silk dressing, namely, preventing perspiration from the pustules, and preserving them free from irritation, until they become detached by the natural process of the formation of new skin underneath. This mask is to be allowed to remain on until the detachment of the scabs by the new skin brings it away with them. It looks, to be sure, very hideous for a few days; but I think that permanent personal deformity is cheaply purchased at the price of an ugly face for some short space of time. This is the remedy which, from extensive personal experience of its efficacy, I would be inclined to recommend for adoption. From the time the small-pox pustules are fully formed, coat them over with this application, and allow it to remain undisturbed until the formation of new skin underneath disturbs it. By adopting it, I can confidently promise you the gratification of sparing your patients the grievous amount of deformity which the numerous cicatrices of small-pox must otherwise inevitably produce."—*Northern Journal of Medicine,* July, 1845, p. 20.)

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30. *New Hospital in Paris. Bequest to the Paris Hospital Fund.*—The Municipal Council of Paris has appropriated *five millions of francs* for the building of a new Hospital, to be located in the Rue Saint Lazare, and to be called *L'Hôpital Louis Philippe,* after the King.

Madame de Lencquesaing, a wealthy lady, who recently died at Paris, has left 835,000 francs to the General Hospital Fund of that city. It has been decided that one of the wards of the new hospital, *Louis Philippe,* shall be furnished out of this sum, and be called "Pavillon et Salle Lencquesaing."—*Gazette Médicale de Paris.*

2.

American Intelligence and Editorial.

NATIONAL CONVENTION.—We have from time to time called the attention of the profession to the proposition of our State Medical Society for the assembling of a convention of medical men in the city of New York, in the month of May next, for the purpose of "elevating the standard of medical education in the United States;"—and we have done so from an honest conviction, that the *necessity* for such an effort actually existed, and that, in the language of the preamble of the resolution of the State Society—"there is no mode of accomplishing so desirable an object without concert of action on the part of the medical societies, colleges, and institutions of all the States." We know that this proposition of our State Society is made in good faith, with no sinister or unworthy objects in view; and that it is prompted by an ardent desire to advance our profession in learning, in honor, in dignity, and in usefulness; and we are happy to learn that it has been responded to from every part of the Union in the same frank and friendly spirit with which it was offered. To us, the assemblage of such a body of medical men, representing States and territories widely separated, seems to promise much good, and no harm to our common profession, and we flatter ourselves, that it will constitute a germ, from which a national organization will spring, calculated to confer lasting benefits upon medical science in our country for many years to come.

With these views and feelings, we regret to hear that some medical schools stand aloof, and propose to take no part in the proceedings of the proposed Convention; but we have scarcely a doubt that, upon further reflection, these institutions will yet appoint delegates. Let us for once at least, come together, from Maine to Texas, from the Atlantic Ocean to Oregon, and talk over our common wants, grievances, and prospects—see what is really needed to give our profession that proud eminence to which it ought to aspire;—what abuses are to be corrected—what reforms sought for—and in short, what matters "*cogitanda—excogitanda, agenda.*" We have but little expectation that a common standard of qualification for graduation can at present be fixed upon, for the different States of the Union; and even if such action were practicable, we doubt very much the policy of attempting it, as the actual condition and advantages of education, and the circumstances of the people, vary so greatly in different sections of our Union. But there are various other subjects, which would naturally come before such a convention, of scarcely less interest and importance, and we should hope, as already intimated, that a permanent National Society would grow out of it, which would, like the "British Association," meet annually, and at which, essays and reports on different branches of medicine would be read, and discussions held. The endemic and epidemic diseases of our country might, in this way, be very successfully investigated, and results arrived at, of the highest interest and importance. In this manner, also, the climate of the United States could be investigated in a more thorough and systematic manner than it has ever yet been; and the laws of storms and meteorological changes could be established on the unerring basis of positive observations. In short, what could not a scientific body of men accomplish by united action, scattered as they are over every part of our extended territory? Shall not such concerted action be attempted?

We invite the attention of the profession to the following Report of the Committee of the New York State Medical Society, on the Proposed Convention, at its recent annual meeting, and hope it may be copied by our other medical periodicals:—

"The Committee appointed at the last Annual Meeting of the New York State Medical Society, to carry into effect a resolution passed at the same meeting inviting a National Medical Convention, in May next, would respectfully report as follows:—

"In the early part of last season the Committee, through their chairman, addressed a circular containing the preamble and resolutions of this society, with such comments as were deemed advisable, to all the State medical societies and medical colleges in the United States, as far as the existence of such societies and colleges could be ascertained. And in those States where neither State societies nor colleges existed, a circular was addressed to some leading member of the profession, inviting him to take measures for having his State represented in the proposed convention. Replies to these circulars and letters have been received from the following officers of medical societies, and colleges and private members of the profession, viz: Drs. W. W. Morris, of Dover, Delaware State; A. H. Buchanan, of Tennessee; W. P. Johnston, of Washington city; T. T. Hewson, R. M. Huston, and W. E. Thorne, of Philadelphia; Luther Ticknor, Connecticut; W. H. McKee, of North Carolina; E. H. Pearle, of Hanover; Paul F. Eve, of Georgia; J. H. Thompson, of New Jersey; J. W. Davis, of Indiana; A. Twitchell, of New Hampshire; John W. Draper, A. H. Stevens, Willard Parker, and C. A. Lee, of New York; J. Drake, of Ohio; Lawson, of Kentucky, and Carpenter, of Louisiana. And delegates have been freely pledged from societies and colleges in Maine, New Hampshire, Connecticut, New Jersey, Delaware, District of Columbia, South Carolina, Georgia, Mississippi, Louisiana, Tennessee, Kentucky, Ohio, Indiana, and New York. The medical schools of Philadelphia are the only ones from whom replies have been received, that decline sending delegates, and giving a hearty support to the proposed measure. Nearly every medical journal throughout the whole Union has not only favorably noticed, but warmly commended the holding of such a convention.

"There are some institutions from whom no replies have been received; but, from information obtained from other sources, there is good reason for believing that most if not all these will appoint delegates as soon as they are fully assured that the convention *will* be held. It will thus be seen that in far the larger part of our Union, the invitation of this society has met with a prompt and hearty response from the profession; and it is with much regret that we find even a few institutions declining to take any part in so important a movement. But when we consider the wide extent of our territory, and the great number of our institutions, all engaged, we should hope, in a generous rivalry with each other, the expression in favor of a convention is certainly more unanimous and more promising of good than could have been anticipated. Indeed the leading and influential members of the medical profession have long felt the necessity of some national action; some central point of influence around which the active and choice spirits of the whole profession can rally, and from which may be made to radiate an elevating, healthful, and nationalizing influence over the whole country.

"Hence, it only remains for this society to carry out the work it has so nobly commenced. The faculty in the New York University have very generously tendered to this society, the use of any room or rooms in their college edifice, that may be desired, for the convention to meet in. Some State societies and colleges have already appointed their delegates, while others have expressed a desire that the society would fix the number of delegates to be appointed by each society and college. For the purpose of furthering the objects in view, your committee would respectfully submit the following resolutions, viz:—

"1st. *Resolved*, That the preamble and resolutions passed by this society, at its annual session, Feb. 6th, 1845, did not contemplate the appointment of delegates to the National Convention, by county or merely local societies, in those States where delegates *are* appointed by a regularly organized *State* society.*

"2d. *Resolved*, That as some societies and colleges have already appointed their delegates, therefore, the number to be appointed by any one of these institutions should be left entirely to the discretion of the appointing body.

"3d. *Resolved*, That sixteen delegates be appointed to represent this society in the proposed National Convention, viz.: two from each senatorial district in the State.

"4th. *Resolved*, That this society accept the offer of the faculty in the New York University, respecting their rooms; and consequently that the members of said National Convention are invited to assemble in the college edifice of New York University, at 10 o'clock, A.M., on the *first Tuesday* in May next.

"5th. *Resolved*, That a committee of three be appointed to continue the efforts to further the objects of the proposed convention; and to exert all their influence to make it truly *National* in composition and action.

"6th. *Resolved*, That the above committee be authorized to invite the superintendents of lunatic asylums in the several States to attend the Convention.

"7th. *Resolved*, That the committee be further authorized and enjoined to send a copy of this report, together with the action of this society thereon, to all the medical journals in the United States, with a request that they publish the same, on or before the 1st of April next.

"W. S. Davis,
James McNaughton, } Committee.
"*Albany*, *Feb.* 3, 1846. Peter Van Buren,

"The above report and resolutions were unanimously adopted by the society. The same committee of three was re-appointed in answer to the 5th resolution. Two delegates were also appointed from each senatorial district in obedience to resolution 3d.

"W. S. Davis,
"C. A. Lee, M.D." Chairman of Committee."

We are again indebted to the chairman of the committee, Dr. Davis, of Binghampton, for the following communication, to which we also invite the attention of our readers:

"*The National Medical Convention.*—Mr. Editor,—As the proposed National Medical Convention will assemble before the May number of your valuable Journal will reach its numerous readers, we purpose, with your permission, to make some further observations on the subjects which will probably come before it. We do it, however, with a full sense of our inability to do justice to the task. We shall first consider what *ought* to be done; second, what *can* be done; and third, *how* it is to be accomplished.

"And first, the standard of primary or preparatory education should be greatly elevated; or rather, *a standard* should be fixed, for there is none now either in theory or in practice. In doing this, a thorough and practical knowledge of every branch of *Natural Science*, and of the *English language*, at least, should be made an indispensable requisite before entering on the study of Medicine or Surgery.

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* We may remark that it appears to be the general wish that additional delegates should be chosen by all county societies, in this and other States, as being the truest mode of *representing the profession* throughout the Union. We presume no objections will be raised to such action.—*Ed. N. Y. Jour. Med.*

"The necessity of this is too obvious to need a single argument; for how can the physician properly understand his business while ignorant of the physical world around him, from which arise nineteen-twentieths of all the causes of disease? How is he to appreciate the important influences of location, temperature, soil, climate, &c., without a knowledge of geology, mineralogy, meteorology, and the laws of caloric, light, electricity and attraction, or natural philosophy; and how is he to rightly understand the appearance, composition, properties, and above all, the mutual action of medicines upon each other, without a thorough knowledge of chemistry and botany? And yet how small a proportion of the whole number of medical students thoroughly understand any one of these branches of science. I know it is often said that much of this knowledge can be acquired by the student during his three years of pupilage, as a kind of recreation from his more direct medical studies. And if the whole study of medicine consists in a cursory examination of perhaps a single text-book on the several general divisions of medical science, and the attendance on one or two courses of lectures, then the saying may be in some measure true. But is not a previous knowledge of these subjects highly necessary to a correct and easy understanding of even the common medical text-books?—and in reference to collateral studies during the period of medical pupilage, what subjects can be more interesting or profitable than general and comparative anatomy, practical pharmacy, dietetics, the influences of climate, soil, occupation, &c., on health; all of which are absolutely necessary to an accomplished and successful physician. We should not only fix an honorable and just standard of primary education, but also bring about a more elevated conception of what constitutes a well educated physician.

"Second. We should elevate the business of *private teaching* to that position which its intrinsic importance demands.

"For a few observations illustrating this position, the reader is referred to the January number of your Journal. Organized as our medical colleges are at present, two-thirds, at least, of the whole term of medical studies must be spent under the care of a private preceptor. Hence there is no plainer proposition in the whole catalogue of truisms, than that the mental character, habits, and attainments of the student, will depend mainly on the manner in which this large portion of his time is spent. And yet, in a great majority of instances, there is no part of the student's time so totally perverted from the right objects as this. It should be the period for minute, patient, and practical researches into every branch of medical science.

"Human and comparative anatomy in the private dissecting room; chemistry in the laboratory; medical botany in the fields; and pathology, therapeutics, hygiene, &c., at the bed-side of his preceptor's patients, should form the chief objects of the student's attention at this period. And these should be pursued with a minuteness and degree of mental discipline to which most of those called *students* are total strangers. If this were done, the student would have a solid frame-work established, to which the medical college would serve as the finishing stroke of the artist, filling up, fixing, and polishing the whole. And a pupilage thus spent would lay a foundation on which future experience, reading, and observation, would not fail to rear a superstructure honorable to the profession and beneficial to humanity.

"Third. A more uniform standard of qualifications should be required of the candidates for medical honors.

"We have, in the State of New York alone, more than fifty separate and independent boards authorized to examine and license candidates to practise medicine and surgery; and the only requisition common to them all, is, that the candidate shall have studied a given length of time, arrived at a given age, and borne a good moral character. Now, every man of common sense would infer, just what abundant experience has proved, viz., that these fifty boards, comprising more than two hundred physicians, would adopt as many standards of qualification as there were different grades of intellect embraced in them.

"Not only so, but many of these boards bear the relation of rivals towards each other; and hence one dare not be too rigid in exacting high qualifications, through fear of driving students to another and rival board.

"Consequently, the tendency of the system is to produce an universal laxity in the examination of students, instead of a uniform rigidity and exactitude. The consequences are everywhere apparent, even to the most careless observer. To remedy this evil we think a *few* independent boards for examining and licensing candidates, should be substituted for the many we now have; and instead of relying entirely on a fixed term of study, we should agree on a fixed *amount* of medical, surgical, and scientific knowledge, as a minimum standard, beneath which no board should go in their examinations, without incurring the direct disapprobation of the whole profession.

"Fourth. We should devise some mode to stimulate the ambition, and arouse the energies of the profession to a higher state of intellectual activity and scientific inquiry. For just in proportion as the mind is engaged in an ardent and noble search after scientific truth; and higher, wider, and deeper professional attainments; in the same proportion will it be elevated above the low, grovelling propensities of our nature, and called off from the petty bickerings, jealousies, animosities, and intrigues, that often render a professional life little better than a perpetual broil, a continual retail of petty scandal, fit only for narrow minds, rendered narrower by avarice and bigotry. If this grand object could be accomplished, and the mass of our profession aroused to a just sense of the dignity and responsibility of their station; if the great whole, like the present few, could be brought to study and practise medicine, as an elevated and noble science, we should not long be mourning over the degraded state of the healing art, or lamenting over the prevalence of quackery.

"We believe that no enlightened physician will deny that the accomplishment of all these objects is imperiously demanded by the best interests of the whole profession, as well as the welfare of the community generally. And if they could be fully realized; if the standard of primary education could be fixed at a proper point; if the profession could be aroused to a just appreciation of the importance of private teaching, or the period of private pupilage, in fixing the mental character and habits of the student for future life; if the number of tribunals for examining and licensing candidates could be made fewer in number, more uniform in the standard of qualifications required, and more faithful as watchmen on the walls of our profession; and finally, if means could be adopted for diffusing a wider, more active, and more universal spirit of investigation through all our ranks; who would not say that the medical profession occupied a noble and ennobling position among the various avocations of life?

"But can these objects be accomplished?

"The timid, the half-educated, and the indifferent, will say nay; and so will many whose locks have become whitened with age, and whose years have been spent in unceasing exertions to promote the honor and welfare of the profession of their choice, but whose hands have grown heavy, and whose hearts have become wearied with unnumbered discouragements.

"But are any of the objects we have named in themselves impracticable, or beyond the reach of human effort? Certainly not. For they exhibit but the natural condition, the legitimate end, at which every enlightened member of our profession should aim. Let us look a moment at the condition and ability of the profession of medicine in this Union. Where do we find the profoundest scholars in general science—the highest ornaments of American literature—the soundest philosophers, and the most undaunted and indefatigable intellects—intellects indeed that defy the elements, and subject all nature, from the heavens above to the bowels of the earth beneath, to the stern crucible of their mental powers? Are they not to be found in the ranks of that profession whose origin dates far back in the history of by-gone ages, and whose object is the relief of human suffering? And can anything within the scope of human accomplishment withstand the united efforts of such a body of men? Assuredly not.

"For we care not what may be the apathy, the indifference, or the gross ignorance of the great mass of the medical profession in our country, we take the bold ground, that there are resolute wills, and generous hearts, and minds enough on whose banner has been inscribed, in indelible characters, *Nil desperandum*, from their youth, to accomplish, by united action, anything that is desirable in the whole field of medicine. Ah! says one, we admit the truth of all this, and the full power of united action; but how to procure this union of effort is the very gist of the whole matter, the rock on which we split, the very barrier that renders fruitless all our efforts. And this leads us to our third and last proposition, viz.: How are these things to be accomplished?

"In answer to this, we say, just as we accomplish everything else that is worthy of the efforts of enlightened minds, viz., by well directed and persevering *action*. Was ever a great and important object, affecting the interests and feelings of thousands, accomplished in one day, or by one single effort? And if not, how inconsistent is that feeling, which I am sorry to find somewhat prevalent among us, which says, if we could only all unite so as to accomplish the object by a single stroke, it would be worth while to make the attempt; but here is a State, and there is an influential institution that will stand aloof, and therefore nothing can be done. Now such a feeling is not only unphilosophical, and therefore unworthy of an enlightened mind, but it is contrary to the very principles on which we daily act. It is saying that we will not take the first step for the accomplishment of an object of acknowledged magnitude and importance, because a greater or less number of subsequent steps will be necessary to complete the work. As we have already intimated, the first object to be accomplished, in the work before us, is to bring about a united effort. And to do this, old prejudices must be removed, conflicting sentiments harmonize, and congenial spirits made to act in concert. There is no way to accomplish this but to bring men together, cause them to take each other by the hand, look each other in the face, and by free and enlightened discussion, give the principles of truth and righteousness free scope, in their operations on the human mind Let intelligent and liberal minds, from Maine and Louisiana, from Illinois and Georgia, meet on one common platform, and how long will petty jealousies, and narrow feelings of selfishness, separate them in feeling and action? The first object, then, is to bring the leading members of our profession together, from every section of the Union; and the second, to agree on some universal standard of *primary qualifications*, about which I think there could be but one opinion. The next step is to elevate and systematize the work of private instruction in medicine. For, as we have said in another place, so long as the student spends, at *most*, scarcely one-third of the whole period of his professional study within the halls of a medical college, we care not if our colleges are made to rival the most celebrated schools of Paris or Edinburgh; while the remaining two-thirds of his time is spent in mere desultory, and almost random reading, without regard to strict mental discipline, and habits of minute and patient investigation, we shall totally fail to bring about that elevation of the standard of medical science which we so ardently desire. But the question recurs, *how* shall we accomplish this? We answer, first, by an appeal to the profession, in such terms as will arouse the attention, and produce a healthy and active public sentiment among us.

"It is active public sentiment that forms the controlling sovereign power over all things in our country. And it only requires such a public sentiment in our profession, to set this matter right. But in addition to this, we would suggest the encouragement of private schools for practical instruction in Human and Comparative Anatomy, Natural History, Botany, &c., &c., in every central place throughout our country, into which the students should be gathered during the intervals of their attendance on the medical colleges, instead of being scattered, one here and another there, without the constantly spurring influence of rival minds to act upon them. Such schools would, almost necessarily, be under the care of the most eminent physicians and surgeons in the sections where they were located; and this, again, would ensure greatly superior advantages to the student, over the present system, while the annual fee necessarily required to sustain the schools, and the fear of constantly coming in contact with more active companions, would form an effectual barrier, at the very threshold, against the entrance of many an indolent and half educated dolt into our profession.

But we shall have occasion to allude to another view of this subject in another place.

"How to reduce the number of our examining boards, and bring about more uniformity and exactness in their requisitions for license, is a question of much more difficult solution. This arises principally from the fact, that the present boards hold this right by special charter; and hence it is legally beyond professional control. But whether it would not be for the benefit of the whole profession, that all county societies should voluntarily surrender their right to appoint censors, and all the medical colleges agree to act, in the examining and recommending of candidates, in concert with a board, equal in number, appointed by a State society in the State where they are located; or whether the whole business of licensing should not be surrendered into the hands of a central and independent board in each State, while the fees resulting therefrom, after deducting a fair remuneration to the censor, should be in some way appropriated to the encouragement of scientific investigations among us, are legitimate questions for the consideration of a national convention. Not, however, with a view of interfering with the legal rights of any man, or body of men, further than such rights may be voluntarily surrendered for the general good.

"But, finally, *how* shall we stimulate the ambition, and arouse the energies of the whole profession to a higher state of intellectual activity? We answer, *first*, by organizing a permanent National Medical Society, by whose annual discussions an exciting, vivifying, and healthful influence shall be exerted over the length and breadth of our country, until a correct and noble sentiment is engendered in the bosom of every member of the profession. Second, by encouraging private schools in medicine, and thereby not only create places that shall excite the laudable ambition of thousands who now never dream of passing beyond the daily professional routine, but which shall serve also as nurseries to keep alive the spirit of active inquiry in every county in our whole Union, and where the busy practitioner may frequently run in and refresh his memory, and renew his knowledge, without the expense and time, which are very seldom submitted to, of travelling fifty or a hundred miles from his home and patients.

"And lastly, we would have a part, at least, of the thousands of dollars which are annually paid by the candidates, for their diplomas, appropriated, under some well organized regulations, to the encouragement of special scientific investigations. Such an appropriation annually might be made a powerful agent in exciting and sustaining a noble spirit of inquiry among us. Indeed, it would in a great measure prevent one of the most fatal evils in the profession, viz., the stern necessity, which a large majority of those who enter our ranks are under, of spending the first and most ambitious period of their lives in accumulating means with which to make investigations, while, in doing so, they inevitably lose the very spirit with which they began. Who can say how many minds, even a moderate fund, judiciously applied, would snatch from a gradually acquired, sordid craving for mere wealth, which never fails to swallow up every nobler feeling of the human mind. We have already extended these remarks much further than we intended, though we have but just entered on the wide field before us. Indeed, we look forward to the day appointed for our National Convention, as one of auspicious dawning; and we hope it will be looked upon only as the beginning of a new and brighter era in the medical profession in our country. N. S. D.

"*Binghampton*, Feb. 1st, 1846."

Clinical Teaching.—We assume it to be the duty of a medical journal like ours, which claims to be perfectly independent of all cliques, schools, and parties, and to be above the advocacy of private views and interests, to discuss from time to time, in a temperate and friendly manner, the various subjects connected with medical education, pointing out existing defects, and suggesting such improvements as circumstances would seem to require. Our long residence in New York, now a period of twenty years;—our intimate and friendly relations with the professors in both our excellent schools of medicine, and may we not add, our constant devotion to our profession, and efforts, however unsuccessful, to cultivate and improve it, as a practical science and art, these, we say, would seem to entitle us to the privilege, at least, of freely expressing our opinions, and of advocating such measures as we think calculated to benefit the cause of education and medical science in our midst, without incurring the charge of interested motives, officious intermeddling, or a desire to depreciate the advantages of our own city, while we exalt those of our neighbors. We are not unaware of the spirited rivalry existing among the different medical colleges of our country, and the natural desire on the part of each, and all of them, to represent in a favorable light, the advantages which they can furnish, for the prosecution of medical study; but we mistake the character of our professional brethren altogether, if they will regard otherwise than with favor, efforts, wheresoever, and by whomsoever made, designed to raise the standard of medical acquirement, and multiply facilities and advantages for the successful attainment of medical science.

Dr. Bell, of Philadelphia, who is on terms of personal friendship with several of the professors in each of the medical schools of that city, has again and again alluded to defective arrangements there, without incurring, as we have ever heard, the charge of hostility to her interests, or a desire to build up the colleges of New York at her expense. In the "Bulletin of Medical Science," for March, 1844, he used the following language:—

> "*The wards of the Pennsylvania Hospital, almost deserted by the Students—a visit but once a week to the Philadelphia Hospital, across the river, are discouraging signs. They furnish bad augury; certainly indicate anything but a healthy state of clinical instruction.*"

In his "Bulletin," for November last, Dr. Bell remarked also, as follows:—

> "One of our contemporaries, in lauding college clinics, as we may call Dispensary practice at the building, gives a rub to some of us, who have not looked through his glasses, when examining into the merits of the present fashion. We had proposed to make a few remarks, resting chiefly on statistical data, in reply; but shall withhold them as inopportune at this juncture. We would say, however, that the opinion heretofore expressed of the advantages, and we may now add, downright necessity of our medical schools having their own hospitals under the jurisdiction and control of their own faculties, are becoming daily more apparent. College Dispensaries are but the preludes to college hospitals, towards the endowment of which we are fully persuaded that this community, including nearly all the members of the medical profession in it, will heartily contribute, so soon as a definite and practical plan of operations is offered by the respective medical faculties."

Our estimate of the advantages of *cliniques* as compared with *clinical* teaching, strictly so called, in hospitals, corresponds very closely with the opinions expressed by Dr. Bell; and if, in giving utterance to these views, we should at times, be somewhat earnest and emphatic, we trust it may be attributed to the true cause, viz., our deep sense of the importance of clinical advantages to the student in prosecuting that most difficult of all studies, the study of modern medicine. To show our sincerity in this matter, should it be thought expedient by the medical schools here to establish another hospital in this city for the purpose not only of curing disease, *but of teaching how to cure it*, by introducing regular, thorough, systematic clinical teaching, in connection with their other lectures, we hereby pledge our personal exertions, and the influence of the Journal and our pen, so far as they have any, to carry the plan into early execution, and we believe the profession generally are ready to co-operate in carrying forward such an enterprise. Private letters from Philadelphia inform us that such a plan is now on foot in that city. New York, with her immense superiority in population, and the more abundant *material* for carrying out such an undertaking to an extent almost unlimited,* will certainly not remain a silent spectator of such efforts, and allow the race to be won without some exertion on her part.

The New York hospital, as we have already remarked, is an admirable clinical school, but *one* such establishment is insufficient to furnish proper advantages to one half the students who are henceforth to resort here for the purpose of pursuing their medical studies. A truce then to jealousies—let us set to work, and cease not our exertions, till one or two more hospitals are thrown open for the cure of the sick, and for teaching the same to others.

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Medical School of the New York Hospital.—We take much pleasure in again calling the attention of our readers to the approaching spring course of lectures at the New York Hospital, which commences on Tuesday, March 10th, and continues two months. Lectures on *Ophthalmic Surgery* will be given by A. C. Post, M.D.; on *Surgical Anatomy* (*Genito-urinary Organs*), by G. Buck, M.D.; on *Surgical Pathology*, by J. Watson, M.D.; on *Diseases of the Chest*, by J. A. Swett, M.D.; on *The Pathological Relations of the Nervous System*, by J. H. Griscom, M.D.; on *Pathological Anatomy*, by T. M. Markoe, M.D.; and on *Animal Chemistry*, by Mr. L. Reid. Mr. Reid, who is an excellent chemist and successful experimenter, will form a class for the purpose of giving practical instruction in those departments of Animal Chemistry most intimately connected with the practice of medicine; the different secretions, healthy and morbid, will be made the subjects of analysis. The ticket is but $8, which admits students to all the privileges of the Hospital, including lectures and the use of the library, for one year. Three lectures will be given four days in the week, from 9 A.M. to 12 M.

In stating the number of students, who had taken out the hospital ticket, in our last Number, we only alluded to those who had done so during the months of November and December last, and since the commencement of the present session of the Medical Colleges. We find, however, on inquiry, that over eighty students are in attendance upon the New York Hospital, including those who took out their tickets during the summer and autumn, a fact which we state with pleasure, as it shows that the great advantages enjoyed in this Institution are better appreciated than we had supposed. If these advantages are not improved by medical students, it will ever be a source of regret to them, we are confident, in after life; for we repeat, however advantageous *cliniques* may be, they do not fully supply the place of hospital privileges and old-fashioned *clinical* teaching. The governors of the New York, unlike those of the

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* About fifty thousand dispensary patients are annually treated in this city, nearly one half of whom are proper subjects for hospital practice.

Blockley Hospital of Philadelphia, are evidently of opinion, that hospitals have two-fold purposes to serve: firstly and principally, to afford relief to the sick-poor, and secondly, to furnish to those who are learning the symptoms and nature of disease, an opportunity of studying on a large scale, under the eye and with the assistance of men who are supposed to possess a more than ordinary amount of information respecting the healing art. They consider that the business of a hospital, as already remarked, is to *cure disease and to teach the cure of it*; and that this can be done nowhere else as well, as in such institutions as that committed to their charge. Accordingly, they have never, so far as we have heard, thrown any obstacles in the way of clinical teaching, but, on the contrary, encouraged it; and since this is the case, we cannot but consider those students as regardless of their own best interests, who do not avail themselves, to the very fullest extent, of these advantages. We perceive that Dr. Cormack has lately been forbidden by the managers of the Edinburgh Infirmary, "to offer private clinical lessons to a class of more than *ten* pupils" in that charity, and that the privilege of giving *any kind* of clinical instruction in Edinburgh, has been limited by the managers to two or more university professors, and alternately to one of the two senior physicians. We are glad to know that such absurd restrictions as these are unknown in the New York Hospital. There is no regulation to prevent any amount of clinical teaching, nor an *equal number* of professors in both our Medical Colleges, from taking part in the clinical instruction of this establishment; and we hope, as an act ot simple justice, that such liberty will soon be expressly granted.

Eau Brocchieri.—There has been recently much discussion in this city, and many experiments made, relative to this second edition of Bishop Berkeley's *Tar Water*, and, as on a vast many other subjects connected with the *healing* art, there seems to be considerable diversity of opinion as to the merits thereof. Having witnessed some of these experiments, and examined the arteries of three or four sheep, to which the water had been applied, and also having examined the water itself, we have come to the following conclusions:—

1. The Eau Brocchieri is a humbug of the *first water*. It is undoubtedly the preparation known in Italy for many years past, under the name of the *Aqua Balsamica Arteriale*, alias *Aqua Binelli*; at least, it is identical with it in composition and physical properties. In proof of this, we refer to Dr. John Davy's "*Researches*" (vol. i., p. 346). In physical properties it corresponds exactly with the Aqua Binelli as thus described by Dr. Davy: "It is of the same sp. gr. nearly as distilled water. It is neither acid, alkaline nor saline. It sodor is not unlike that of coal-gas not purified, which it loses by boiling; taste rather pungent; not in the slightest degree astringent. In short, it appears to be merely water containing a little volatile oil or naptha, and is probably prepared by distillation of water from petroleum, or some kind of tar."

2. As a styptic in cases of ordinary cuts or wounds, it has no other efficacy than simple cold water. This has been proved by Dr. Davy, Dr. Mott, and many other physicians of high standing.

3. It has been proved by Dr. Davy, that if the carotid artery of a dog, goat, or sheep, be divided partially, transversely, or even *entirely severed*, the hemorrhage can be effectually controlled, by compresses (with *moderate* pressure), wet with cold water. For several experiments of this kind, we refer to Davy's "*Researches*," vol. i., pp. 347—51, etc.

4. In the experiments above referred to the artery remains pervious. The inferences deduced by Dr. Davy are thus stated: "My experiments," says he, "show how a hemorrhage from the wound of a large artery, which by itself

would be speedily fatal, may be easily arrested by moderate compression through the means merely of several folds of linen or cotton, moistened with water; and they further show how, under this moderate compression, the wound in the artery heals, the vessel remains pervious, and without the formation of an aneurism, and how, after a time, the short space of six weeks, only just perceptible traces of the wound are discoverable. Whether similar results would be obtained, were trial made of the same means in the wounds of arteries in the human subject, can only be ascertained, positively, by judicious experiments. The probability is, the results would be the same," etc.—(*Loc. cit.*, p. 351.)

SPRING COURSE OF LECTURES IN THE COLLEGE OF PHYSICIANS AND SURGEONS IN CROSBY STREET.—The Annual Spring Course of Lectures in this institution, will commence on Tuesday, March 17th, and continue three months, two lectures daily.

Dr. G. Wilkes will lecture on the anatomy and diseases of the eye; Dr. H. D. Bulkeley, on diseases of the skin; Dr. A. Clark, on the pathology of the chest; Dr. Quackenboss, on surgical anatomy; Dr. Roberts, on subjects in general pathology; Prof. Parker, on the male urinary apparatus; Professor Gilman, on the diseases of the uterus; and Prof. Watts, on special anatomy. Each of the practical courses will be illustrated by cases examined and prescribed for in the presence of the class. Clinical instruction at the college Monday and Thursday of each week; and on Monday, Wednesday and Friday, at the Eye and Ear infirmary, by Dr. Wilkes. Diseases of the skin amply illustrated. Fee for the whole, *ten dollars.*

Students in the country will find it much to their advantage to spend the spring months in the city, and attend one of the two excellent courses of lectures, then in course of delivery.

REPORTS OF THE NEW YORK CLINIQUES.—We have long had it in contemplation to report select cases, occurring at the weekly cliniques of Professors Mott and Parker, with the remarks of these gentlemen, but various circumstances have hitherto prevented. There is now, however, the less necessity for our doing so, as a periodical has been commenced in this city, by Dr. C. T. Collins, under the name of the "*New York Medical and Surgical Reporter,*" which is nearly exclusively devoted to reporting cases occurring at the above "cliniques," and in hospital practice. Although, as we have said before, there are some ordinary cases coming up at these cliniques, which are hardly worth publishing, yet there are others of high interest, and the observations made on them are eminently practical,—the result of much study and extensive experience, and well worth recording for the benefit of the profession generally. Dr. Collins is well qualified for his undertaking, and we hope will receive a generous support from the profession.

Transylvania University.—We learn from an "Extra" of the Lexington (Ky.) "Observer and Reporter," Feb. 4th, 1846, that Samuel Annan, M.D., of the city of Baltimore, has been elected Professor of Obstetrics in the Transylvania University, and Elisha Bartlett, M.D., formerly of Lowell, Mass. (now in Europe), Prof. of the Theory and Practice of Medicine. We are informed that there were forty-nine candidates for the Obstetrical chair, from seventeen different States. Of course the task of selection was not an easy one; we believe, however, that the choice has fallen on a gentlemen, not only qualified to sustain, but extend the reputation of the University.

Catalogues of Medical Schools.—The present season seems to have been a highly prosperous one for medical schools generally. Beginning at the east, we find in the catalogue of the Medical School of Maine, at Brunswick, the names of 73 students. We are glad to see that this school requires in candidates for graduation, a knowledge of the *Latin language and Natural Philosophy.* The library has 3,200 volumes, and students are entitled to borrow two books weekly. We cannot, however, but regard the organization of the school as very defective, it having but three professors. We have received no catalogue from Harvard University, but understand that about 180 medical students are in attendance. Yale numbers but 53 medical students, the present year, although it has a very able faculty of six professors; one feature of the regulations we like, and that is, that the "board of examiners" consists of the medical professors of the college, and an equal number of physicians, chosen by the Fellows of the Medical Society of the State; licenses are also granted by the president of the Society, upon the recommendation of the same board, and candidates for a license must possess the same qualifications as those for a degree—except that one course of lectures only is required. The University of the City of New York has, we are informed, 425 students, and the College of Physicians and Surgeons, 200. The commencement of the former is held on the 12th day of March. The class of graduates this year, it is believed, will reach as high as 150 or more. The Medical Institution of Geneva College numbers 178 students. In this institution, the candidates are examined by the professors in the presence of the curators (of whom there are about twenty), and a majority of the votes given in joint ballot is necessary for a recommendation for a degree. The catalogue of the Western Reserve College at Cleaveland, has enrolled on it the names of 160 medical students. We regret to read on the circular announcement of this flourishing school that "when desired, a *promissory note* payable in twelve months will be received in place of money at the time," a plan which is fraught with evil, both to students and professors, too numerous to mention. If students require credit, they can generally obtain it, if desirable, of their friends and acquaintances. The catalogue of the Willoughby Medical College gives a total of 164 students. Students seem to swarm in northern Ohio. We hope, as a sort of regulator both in Ohio and elsewhere, that as numbers increase, the standard of requirements for graduation will rise; we are told, that the courses of lectures in this school, are as full and thorough as in any similar institution, and that the examinations for graduation are as rigid as can well be. We are pleased to see also that it is expected that students will *pay for their tickets,* when they take them out; although it would seem that notes, with good security, are likewise taken. Berkshire Medical Institution has 142 on her catalogue.

Lectures on Lithotripsy.—We are happy to learn that Dr. F. Campbell Stewart, of this city, will commence a private course of lectures on "Lithotripsy and Diseases of the Genito-Urinary Organs," early in March. We can recommend these lectures, from our personal knowledge of the qualifications of Dr. Stewart, as in the highest degree worthy of the attention of medical practitioners and students of medicine.

New-York Eye Infirmary.—The twenty-fifth annual report of this institution states that during the past year more than 1516 new patients have been received at the Infirmary. On the Ist January 1845 there remained under treatment 43, thus making an aggregate of 1559 prescribed for by the surgeons during the year 1845. Of this number 1154 were cured, 85 relieved, 30 declined treatment, 13 were discharged as incurable, the results of 27 were not ascertained, and one hundred remained under treatment. This is an increase in the number of patients last year of 200.

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Deaths in the City during the past year.—Whole number of deaths in the City of New York, during the past year, 1845, 10,983—of whom there were: White Males 5,554, White Females 4,892, Black Males 261, Black Females 276; of these there were of the age of five years and under 5,865, from five to ten 410, from ten to twenty 389, from twenty to thirty 1,161, from thirty to forty 1,131, from forty to fifty 760, from fifty to sixty 417, from sixty to seventy 343, from seventy to eighty 206, from eighty to ninety 111, from ninety to one hundred 21, one hundred and over 3, unknown 106. The principal causes of death are as follows: Consumption 1,659, Convulsions 721, Fevers 501, Cholera Infantum 523, Apoplexy 252, Congestion of the Brain, 186, violent death 165, old age 113.

Places of Nativity.—United States 8,510, Ireland 1,384, France 46, England 268, Holland 12, Scotland 116, Sweden 1, Germany 349, Russia 4, West Indies 20, Poland 1, Wales 15, British North America 32, Norway 2, Switzerland 9, Denmark 4, Italy 5, Spain 3, Prussia 2, Africa 2, at sea 1, unknown 197.

Places of Interment—Catholic Burial Places 3,794, Baptist 184, Methodist 1,791, German Lutheran 381, Presbyterian 889, Hebrew 72, Episcopal 341, Friends 53, Dutch Reformed 278, Associate do. 4, African 199, Potter's Field 1,437; removed from the city 1,419.

Whole number of deaths at the various Hospitals and other public institutions, 913. Increase of deaths in 1845 over those of 1844, is 2023.

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Pregnancy at a very advanced Age.—A woman in the Department of the *Seine et Oise*, the wife of a carpenter, much younger than herself, recently gave birth to a living and healthy male infant, at the advanced age of sixty-five.—*Galignani's Paris Messenger.*

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Jarvis on Popular Physiology.—We received at too late a period for notice under our Bibliographic Head, a copy of a Lecture on the Necessity of the Study of Physiology, delivered before the American Institute of Instruction, at Hartford, August 22, 1845, by Edward Jarvis, M. D., of Dorchester, Mass. We shall hereafter notice this lecture at some length, in the meantime we can only recommend it as decidedly the best discourse of the kind we have ever met with. A copy ought to be placed, at the public expense, in every family in the Union.

TO OUR READERS.

We solicit, for the first time, the indulgence of our subscribers for the late appearance of our Journal, it having been delayed for the proceedings of the *National Medical Convention*, recently convened in this city. We had expected to have furnished with the report of what was done, the remarks made by the different speakers; but we find it impossible to do this without delaying the present number too long, as each individual would, of course, expect to examine the proofs containing his remarks. We, therefore, present merely an abstract of the proceedings, and, in our next, shall publish the official account, as prepared by the Secretary.

We cannot refrain, however, from congratulating the profession generally upon the very successful and auspicious results which are likely to flow from the recent Convention. We presume there was not an individual present who was not surprised to find so general and respectable a representation of the medical societies, associations and colleges of the United States; and there certainly could have been no one, who did not feel honored by convening with such associates, distinguished, as many of them were, by eminent success, as authors, teachers, and practitioners, or, as all were, for zeal in the cause of medical education. If there was something inspiriting in the very idea of bringing together, from our vast and extended territories, a body of learned and laborious men, intent on advancing their noble profession in honor and usefulness, there was something still more gratifying in finding ourselves actually in the presence of an assembly far more numerous and respectable than was contemplated by the most sanguine—an assembly actuated by one common sentiment,—the improvement of medical science, the advancement of the profession in those attainments and qualifications which may ensure to it not only greater usefulness, but implant it still more firmly in the respect and confidence of the community. These ends were kept steadily in view in all that was done, and all that was said; and we believe we shall be sustained in the opinion, that they will, sooner or later, be accomplished. It was not expected that much more would have been done at the recent meeting than to institute incipient measures; survey the whole ground, collect public sentiment—in short, prepare the way for future action. This would have been accomplished, it is true, by a still smaller number than actually assembled; but then, we should have wanted that assurance which we now feel, that the profession throughout the whole United States are prepared to enter in earnest upon the plan of medical reform, and carry out those measures which seem to be demanded for the promotion, not merely of our individual or common interests, but the more important and pervading interests of our common humanity. When the attempt was made, in 1826, to convene a similar convention in Northampton, Massachusetts, after more than a year's preparation, but *eleven* persons assembled, representing but *four* State Medical Societies, and five Medical Schools; and a similar convention, which was to have met in Philadelphia on the first Tuesday of May, 1828, at the call of the *Medical Society of the State of New York*, to consist of a delegate from each of the regular Medical Colleges and State Medical Societies, "for the purpose of suggesting and recommending for adoption, so far as is consistent with the laws of the several States, a more uniform system of medical education than now prevails"—this convention was a total failure, Dr. T. Romeyn Beck, of Albany, being the only delegate present. The far different result of the recent proposal for such an assembly, we repeat, satisfactorily shows that the time has arrived, as we anticipated, when such an attempt would be crowned with success.

It is unnecessary here to call attention to the proceedings of the Convention, as they speak for themselves; we cannot, however, but rejoice at the prospect, that the national organization of the profession, which will inevitably follow, will not only do much for the cause of medical education and medical ethics, but also for medical science. The promotion of either of these objects is worthy of a combined, systematic, and persevering effort. We have no doubt whatever that the convention which is to assemble in Philadelphia on the first Wednesday of May, 1847, will be still more numerous, and that every Medical School and State Society in the Union will there be represented. The series of reports which will then be presented, judging from the character of the committees appointed, will be able and interesting.

We also invite attention in our present number, under our Foreign Miscellany, to the proceedings of the late *French Medical Congress*, which convened at Paris during the last year. Besides possessing an intrinsic interest, which will commend them to our readers at the present moment, when questions of medical reform are agitated throughout Great Britain and America, and the whole profession seems actuated by one common spirit, they cannot but attract the profound attention of every medical man.

Connected, also, with the subject of medical education, we present a report of the Counsellors of the Massachusetts Medical Society, made in the year 1826, as showing what were the opinions of an enlightened body of men at that period on many of the important questions connected with this subject. To New England belongs the credit of adopting the earliest measures for the improvement of the profession; and, as her reward, she has a body of medical men who will not yield to any in point of respectability, practical skill, and usefulness.

Our readers will perceive that we have exceeded our customary limits in the present number, by nearly one-third the usual quantity of matter, and that, too, without subjecting them to additional expense. We think they will agree with us, that this liberality on the part of our publishers deserves their consideration, and constitutes an additional claim to the continuance of their influence in extending our circulation. It is an earnest and a pledge of future efforts, on their part, to sustain the reputation and usefulness of the work.

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The Diagnosis, Pathology, and Treatment of the Diseases of the Chest. By W. W. Gerhard, M.D., Lecturer on Clinical Medicine to the University of Pennsylvania, etc. Second Edition, revised and enlarged. Philadelphia: Barrington & Haswell. 1846. 8vo., pp. 288.

The Young Stethoscopist; or, the Student's Aid to Auscultation. By H. J. Bowditch, M.D. New York: J. & H. G. Langley. Boston: William D. Ticknor & Co. 1846. 12mo., pp. 278, . . . 401

Art. XX.—The Natural History and Diseases of the Human Teeth. By Joseph Fox, M.R.C.S.L., &c. First American Edition. Remodelled and edited by Chapin A. Harris, M.D.D.D.S., &c. Illustrated with thirty plates. Philadelphia: Barrington & Haswell. 1846. 8vo., pp. 424, ... 404

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Art. XXII.—Elements of Surgery. By Robert Liston. Fourth American Edition. With copious notes and additions by S. D. Gross, M.D., Professor of Surgery in the Medical Institute of Louisville, etc. With numerous engravings. Philadelphia: Barrington and Haswell. 1846. 8vo., pp. 664, ... 406

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TO READERS AND CORRESPONDENTS.

In our next number, we shall continue the publication of the Proceedings of the Medical and Surgical Society of New York; also of the Kappa Lambda Society of this city. Articles will also appear from President Hale, of Geneva College; Drs. Smith and Elliot, of New York; Dr. Kellogg, United States Navy; Dr. Monell, of Newburgh; Dr. Williams, of Deerfield; Dr. Dowler, of New Orleans; the Editor, and several others.

Since our last, we have received the following works:

The Influence of Tropical Climates on European Constitutions. By James Johnson, M.D., and James R. Martin, Esq. From the Sixth London Edition. With Notes by an American Physician. S. S. & William Wood. 1846. 8vo., pp. 624. (From the Publishers.)

A Manual of Chemistry. By Richard D. Hoblyn, A.M. New York: S. S. & William Wood. 1846. 12mo., pp. 325. (From the Publishers.)

Elements of Physiology, including Physiological Anatomy. For the use of the Medical Student. By William B. Carpenter, M.D., F.R.S. With 180 illustrations. Philadelphia: Lea & Blanchard. 1846. 8vo., pp. 566.

Lectures on Natural and Difficult Parturition. By Edward W. Murphy, A.M., M.D. London: 1845. 8vo, pp. 263. (From the Publishers.)

An Introduction to Entomology; or, The Elements of the Natural History of Insects, etc. By W. Kirby, F.R.S., and William Spence, Esq, F.R.S. From the Sixth London Edition. Philadelphia: Lea & Blanchard. 1846. 8vo., pp. 600. (From the Publishers.)

An Essay on the Use of Narcotics and other Remedial Agents calculated to produce Sleep, in the Treatment of Insanity, etc. By Joseph Williams, M.D. London: 1846. 12mo., pp. 120. (From the Author.)

Elements of Materia Medica and Therapeutics. By E. Ballard, London, and A. B. Garrod, M.D., etc. With additions and alterations by R. E. Griffiths, M.D. Philadelphia: Hogan & Thompson. 1846. 8vo., pp. 516. (From the Publishers.)

Directions for taking Meteorological Observations, adopted by the Medical Department of the United States Army. 1846. 8vo., pp. 30. (From Dr. Mower.)

Lectures on the Nature and Treatment of Deformities. By R. W. Tamplin, F.R.C.S.E. With illustrations. Philadelphia: Barrington & Haswell. 1846. 8vo., pp. 216.

A large number of other works received will be acknowledged in our next,

The following Medical Journals have been received in Exchange:—

The Dublin Medical Press.
The Dublin Journal of Medical Science, &c.
The London and Edinburgh Monthly Journal of Medical Science.
The Provincial Medical Journal.
The London Medical Gazette.
The American Journal of the Medical Sciences.
The Illinois Medical and Surgical Journal.
The New Orleans Medical Journal.
The Boston Medical and Surgical Journal.
The Western Journal of Medicine and Surgery.
The St. Louis Medical and Surgical Journal.
The Medical News.
The Philadelphia Medical Examiner.
The Bulletin of Medical Science.
The Southern Medical and Surgical Journal.
The Montreal Medical Gazette.
Silliman's Journal of the Arts and Sciences.
The American Journal of Pharmacy.
The American Journal and Library of Dental Science.
The American Journal of Insanity.
The Buffalo Medical and Surgical Journal.
The Southern Journal of Medicine and Pharmacy.

A notice of the recent Commencement at the University of New York, and the College of Physicians and Surgeons, together with a list of their graduates, was received at too late a period for insertion in our present number—it will appear in our next. Several works which we have hitherto acknowledged will then be noticed.

☞ We again repeat, that we are not to be held responsible for the statements or sentiments of our contributors; as the Journal has always been conducted on this principle, so it will continue to be, while under its present management. We beg our correspondents, however, to avoid everything which has the least bearing towards personality, and, so far as possible, any remarks which may give unnecessary offence. Our aim is, instead of exciting or fomenting discord or animosity, to do all in our power to conciliate and harmonize the profession. The Journal must be the organ of peace and good-will, so far as this is compatible with the claims of justice and impartial criticism.

☞ All letters in regard to the *business* department of the Journal, and all remittances of money, should be addressed *exclusively* to the Publishers, J. & H. G. Langley; but books for Review, and Communications designed for publication, should be directed, *free of expense*, to the Editor of the New York Journal of Medicine, care of J. & H. G. Langley, New York. Persons at a distance, may direct parcels paid as above, under care of Barrington and Haswell, Philadelphia; W. D. Ticknor & Co., Boston; and Wiley and Putnam, London.

THE NEW YORK

JOURNAL OF MEDICINE.

FOR MAY, 1846.

PART FIRST.

Original Communications.

ART. I.—*Experimental Researches on the Post-Mortem Contractility of the Muscles, with Observations on the Reflex Theory.* By BENNET DOWLER, M.D., of New Orleans.

In carrying out the limited aim of this monograph, it is necessary to enter upon a sterile field, which has been, nevertheless, much cultivated of late by some of the most eminent medical philosophers, and, if my labors shall lead to results different from theirs, that difference will be stated with all due deference and candor, without indulging in a spirit of controversy unwarranted by the exigencies of the occasion. In matters of an unsettled or disputable nature, the collision of opinion with opinion, of argument with argument, may elicit the spark of truth to guide us into the right path.

Avoiding, as much as possible, all general observations on the anatomy, physiology, and pathology of the Nervous System, except so far as they stand related to muscular motion and the Reflex Theory, I will at once admit that the Reflex doctrine is ingenious, and has been useful in exciting inquiry, though its claims as a fundamental principle of science are, as I expect to show, altogether visionary. An entire devotion to the truth, in the examination of this subject, implies neither presumption nor temerity.

The Neologies of the Reflex system, independently of its doctrines, are alike puzzling to teacher and pupil, and foreign to the genius of both ancient and modern lexicons, and will afford the future historian of medical literature, curiosities, not to say enigmas—

> " Words so hard no stone
> Is hard enough to touch them on."

Afferent and Efferent; Ingestive, Egestive, Centric and Excentric; Excito-motor, Motor-excitor, Incident-excitor, Motor primitive fibril, Sensitive primitive fibril, Motor-sensory-grey matter, Sensory-grey matter, Centrifugal and Centripetal nervous conductions, Psychical, connate, Sensori-volitional, Idea-genic, Kinetic, and other kinds of strata and substrata, with many Reflex changes acting on the histological stratifications, etc!

Whether this technology shall be planted firmly in our dictionaries, depends not so much upon the lexicographers, as upon the soundness of the doctrines which these terms represent. In more than one respect, this is a very important question. After the exploration of that immense mass of concentrated agony, which has been drawn from the sawing, pinching, pricking, cutting, burning, electrifying, and galvanizing frogs and other animals—after travelling through the labyrinthian mazes of the Reflex Physiology and Pathology, the student at the denouement is compelled to say, as in "The Two Gentlemen of Verona,"

"How like a dream is this I see and hear!"

I could name one of the best works on Physiology, wherein the Reflex doctrine, in its various phases in the nervous and muscular systems, occupies *one-sixth* of the entire book, requiring more time and difficulty to get some notion of it, and then to unlearn it, than any other part of the work, as is usually the case, where the words are hard, the experiments equivocal, the doctrines incomprehensible.

The Medico-Chirurgical Review of 1836 designates the doctrines of Bell and Hall as "a burst of discovery as brilliant as it was unexpected," and at the same time explains the excitomotory or Reflex theory thus:—"If a stimulus be applied to a part supplied and regulated by the spinal nerves, the impression is conveyed by sentient nerves to the spinal axis, and the action consequent upon it is conveyed from the spinal axis by motor nerves to the original part. All this is, to a certain degree, independent of the brain."

This able periodical, whose distinguished editor, unfortunately for the cause of science, is now numbered with the dead, has for more than twenty years upheld this doctrine in all its phases—even the last number (Oct., 1845) proclaims it "as the foundation upon which all accurate knowledge must ever repose." The following extracts are from the same work:

> "It is at length admitted on all hands that here (in the spinal cord) impressions do pass, and necessarily, from the afferent to the efferent fibres.' 'The impression (necessary to muscular motion) is conducted to the spinal marrow, is thence reflected, and again reaches either the part on which the impression took place, or some other part remote from it, where the muscular contractions now take place'—'*in an arched and reflected course, requiring that the connection with the spinal marrow be uninjured*'—'a throwing back of the nervous principle into the spinal marrow, without at the same time admitting a process similar to sensation.' This process is also compared to the '*reflection of light.*'"

To prevent mistakes as to the meaning of authors, it will be necessary to give their own words, as briefly as possible, on this topic. Dr. M. Hall, in his work on the *Nervous System*, says that he "divided the spinal marrow of a frog below the occiput—on pinching its toes with the forceps, the extremities moved," but "on destroying the spinal marrow with a probe, they were, on pinching, motionless." "The limbs of an animal, or a part of an animal, separated from the influence of the cerebrum, become relaxed on destroying the spinal marrow." "On withdrawing gently the spinal marrow of a decapitated turtle, all motion ceased. The limbs were no longer obedient to stimuli, became perfectly flaccid, having lost all their resilience. The sphincter lost its circular form and contracted state, and became lax, flaccid, and shapeless." "*The presence of the Medulla Oblongata and Spinalis is necessary to the contractile function.*" "To irritate the spinal nerves will produce contractions the very type of tetanus, leaving no doubt of what particular part of the nervous system is affected in that disease." Finally, he concludes, that these "effects have not been hitherto suspected by Physiologists."

In an able and approbatory review of this work (American Jour. Med. Science, 1839), a summary of Dr. Hall's discovery is thus given: "five circumstances are required in every instance of an excito-motory act; an excitant; *an excitor nerve, continuous to the nervous centre; the integrity of that centre: a motor nerve, continuous to the muscle to be excited into contraction;* and that muscle to be endowed with perfect irritability. *If any part of the arc be interrupted, the phenomena cease instantly.*" "There can be no better test of the value of these views than the contest which has arisen, not with regard to their truth, but their originality"—"they have gained ground in despite of all opposition." "*All action is the result of stimuli to the nerves which proceed to the spinal marrow, pursuing a reflex course,*"—"*By two lines.*" Reflex, convex, complex, and perplexing routes these, for even Bell, Hall, Müller, Magendie, and both the *Academies Royales!*

The reviewer refers to a frog, a turtle, and a lobster experiment by Dr. H. To make an experiment under the tension of a preconceived theory, is, too often, but little better than the making of an experiment to order. According to the reflexians the destruction of any part of the cord affects the contractility of a corresponding part of the body and no more! This is what Mr. Canning called drawing on the imagination for facts.

In the Philosophical Transactions (1839), Dr. H. advances the same doctrine—"*That muscular contraction is reflex, curved,—requiring the connection with the medulla spinalis to be preserved entire.*"

In order to investigate this subject in a proper manner, that is rigorously and without bias, it is necessary to forget the great names which stand committed to the doctrine of Bell. Many years before his death he declared that "the reception of his discovery, concerning the different functions of the anterior and posterior roots of the nerves, was the reverse of what he expected, its early announcement having failed to draw one encouraging sentence from medical men." (Nerv. Syst., p. 10.) What a change! In January, 1845, when M. Castel presented to the Royal Academy of Medicine, at Paris, his work on the *nervous system*, purporting to be a refutation of this doctrine of Bell* (*Exposition des attributs du Système Nerveux, refutation de la doc-*

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* M. Bosquet's review of this work in the *Gaz. Méd. de Paris*, might be best translated by a slight change in Pope's epitaph on Newton, thus:

"Nature and nature's laws lay hid in night."

God said, "Let Castel be!" and all was light: or as M. B. says, "*Sans lui, tout* *trine de Charles Bell, etc.*), he was gravely charged with being the only member of that learned institution who denied this fundamental doctrine of neurology. Impartial history teaches us not to be surprised at anything which relates to the oscillations of medical theory. Dr. Marshall Hall, who has lately received the well-merited honor of membership in the Academy, is more fortunate than Bell, since he sees his reflex doctrine flourishing almost everywhere in insular and continental Europe.

However desirable it may be to avoid uttering common-place homilies on the nervous system, it is necessary to give, briefly as perspicuity will allow, the views of the most prominent writers on the subject under consideration.

The reflex school maintains, not only that the integrity of the spinal cord is indispensable to transmission, but that the division of the anterior roots is a complete barrier to muscular motion. This doctrine is not based on the healthy, living body. It is not, with a few obscure and unimportant exceptions, deduced from morbid conditions, but from the last agony, and more than all, from the recently dead state of the inferior animals—a kind of proof by no means satisfactory.

It should never be forgotten that experiments on the inferior animals, as frogs and turtles, are inconclusive in establishing the complicated physiology of man. An earth-worm may be cut into several pieces, each of which becomes a perfect animal. The more the *hydræ* are subdivided, the more is their number increased without loss of vitality. Could we deduce a vital or reflex theory from such experiments applicable to man? Were capital punishment changed from hanging to vivisection of the spinal marrow, this would but poorly illustrate the physiology of a healthy man, or the pathology of a sick one, yet one such experiment would be worth a thousand upon frogs.

I beg leave to offer an example, not perhaps the most striking, but the most convenient, taken from "Blackwood's Magazine," showing the vitality of the shark (reported in a work "*Fifty days on board a slave vessel, in* 1843," by the Rev. P. G. Grenfell, chaplain on board H.B.M. ship Cleopatra):—

> "A shark followed the ship and was caught. When brought on deck he exhibited the usual and remarkable tenacity of life. Though the tail was chopped off and his entrails taken out, in neither of which operations it exhibited any signs of sensation, yet no sooner was a bucket of salt water poured on it to wash the deck, than it began to flounder about and bite on all sides."

Does man ever exhibit such vivid phenomena after evisceration?

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est obscurité, tout est confusion ; avec lui, tout se dénoue, tout s'explique, et les ténèbres font place à la lumière." M. Castel delivers himself of his general doctrine thus, "*La myotilité exige un plus grand somme de puissance nerveuse que la sensibilité.* He maintains that the only difference between the anterior and posterior roots consists in the different degrees of consistence or density by which their conducting power is modified; that the anterior roots have more motor force, because they are denser, and, therefore, better galvanic conductors. Now without affirming or denying M. Castel's doctrine, I must protest against the principle of building one half physiology and pathology upon the conducting powers of zinc, copper, nerves and muscles. This superior conduction of the anterior roots may refute the doctrine of Bell, but still it leaves us in that *terra incognita* (or *terra nervosa*, it might be called), where Bell struggled all his life along the frontiers of galvanism and vitalism—where reason as well as electricity itself, cast an uncertain and bewildering light, and where an invisible barrier arrests the progress of the human faculties. In this nebulous realm, this Hades of physiology, the reflex magicians build their phantasmagorial system.

Hear Sir Charles Bell, in his great work on the nervous system :—

> "Cold-blooded animals will live without the brain. Birds, whose heads were cut off, Le Gallois says, walked, seemed to feel pain, and moved their feet towards the part. Flourens goes further, since he says, that a bird deprived of the cerebral lobes dressed its feathers, and ran and leaped."—P. 25.

Such experiments, including many of the author's prickings and cuttings of the spinal marrow, can have no satisfactory application to man. The same may be said of M. Magendie's experiments.* He wishes to know the functions of certain nerves; he divides them at their origin, plunging a sharp instrument through both sides of the skull at the base of the brain, cutting up the cerebral matter, and perhaps several other nerves, in order to divide the fifth; nay, more, he removes both hemispheres of the brain from a duck. This animal, for eight days after, appeared to do very well, and as he assures us, possessed the sense of smell! Now the question is, does man exhibit such phenomena after the removal of the brain, or the division of its nerves within the cranium, or the dissection of the anterior and posterior roots of the spinal nerves? Truly, the reflex theory is well named (from, as I suppose, *reflecto*, to bend or bow back, to recurve). Its logic is angular, curved, or circular, as well as the experiments themselves!

I do not here wish to dwell on the equivocal results obtained from artificial tortures, and artificial diseased conditions of a denaturalizing character, so completely beyond the pale of normal physiology and pathology, and, withal, based, on experiments difficult to execute, and repulsive to the moral sense of the profession; experiments not likely to be verified for these reasons, though the obscurity of the subject would seem to require a proportional multiplicity of observations.

As illustrative of the nature of these experiments, I offer the testimony of an able champion of the reflex school :—"The experiments," says the editor of the 'Medico-Chirurgical Review,' "which have been devised and practised for ascertaining the functions of the nerves, are the most cruel that can be imagined, while the results thereby obtained have frequently been unconvincing or uncertain." This language, repeated from year to year, gathers strength in the last number of that journal (Oct., 1845), in which the editor denounces vivisections, and "protests," to use his own words, "against those barbarous experiments on living animals, the performance of which is so disgraceful, upon the whole, to the medical profession. And what good have they done?—literally none. We verily believe that there would have been much more rational views upon many disputed questions in physiology, if observation had been exclusively confined to noticing the natural and spontaneous phenomena of life in health and disease, and diligently examining after death the effects which disease leaves behind. Shall we believe that any conclusion worth knowing can be drawn from cutting a poor animal's heart out of its body? Away with such butcher-like philosophy!" Subtract these experiments from the reflex theory and little remains!

Without at all derogating from Sir Charles Bell's, or M. Magendie's, or Dr. Hall's claims as discoverers of the "anterior roots," and reflex theories built thereupon, it may be proper to add that Haller maintains the spinal theory of muscular contraction, which, he asserts is rendered impossible by the destruction of the spinal cord "(*First Lines*, ccccii.)."

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* English critics assign to this distinguished physiologist, the second seat of honor in this department of discovery.

Béclard says, "That the conditions of muscular action are, the life of the muscle and its communication with the circulatory and nervous centre, its integral state, and the action of an exciting or stimulating influence;" he adds, "That cadaveric rigidity never takes place so long as the muscles possess any galvanic irritability.—(*Gen. Anat.*) Hooper holds that, "To a certainty no muscular contraction can take place without the immediate action of the brain and nerves."—(*Dict. Méd.*) Sometimes he represents contractility as the fundamental property of vitality, and even as its cause. In a late and learned work on Physiological Anatomy and Physiology, by Messrs. Todd & Bowman, the reflex theory appears as a fundamental truth; "The antero-lateral columns of the cord, with the anterior and posterior forms of the grey matter, are the effective centres of motion and sensation to the trunk and extremities."

Sir Charles Bell sums up his researches upon this subject, by saying, "These opinions and experiments have been followed up to the satisfaction of all Europe. It has been acknowledged that the anterior roots of the spinal nerves bestow the power of muscular motion and the posterior sensibility."—(*Anat.*) A discovery which Dr. M. Hall designates "as the most splendid in physiology within the last century."—(*Diag.*)

Professor Carpenter, of England (who considers the spinal marrow as not only independent of the brain, but as frequently opposed to it in action), when speaking of the biceps muscle, says, "That the only way to excite the whole muscle into contraction at once, is to stimulate it through its nerves."—(*Phys.*) Many other authors flatly deny the possibility of exciting contractions when the nerves leading to the muscles in the recently dead body are divided. "The power of determining individual muscular action involves of necessity the agency of insulated, that is, independent conductors."—(*Med. Chir. Rev., Oct.*, 1845.)

Before entering upon the validity of these assumptions it may be proper to state that the circle of the reflex function is rapidly extending from the spinal marrow to the brain, where the phrenologists find it very useful in explaining the developments. Geo. Combe, Esq., infers, "that from the anterior lobes of the brain, the seat of the intellectual faculties, there must be medullary fibres communicating with the motor portion of the spinal cord." Professor Reid, after saying "that the true excito-motory movements do not require the presence of the cerebrum for their manifestation," adds, "All modern physiologists agree that when emotions are excited in the mind, a reflex and motive influence is sent downwards along the motiferous column, and along the motor nerves, to the muscles thrown into contraction." Dr. Laycock carries the reflex doctrine further, and to make it the basis of all mental science, "All incident excitor impressions have to complete a circle through the central ganglia of the cerebro-spinal axis,"—"exciting ideagenic and kientic substrata, and the organs of intellect, and the desire for medical skill and other phenomena of reason and volition; the deepest feelings of religion, patriotism and honor; the love and pursuit of truth; the avoidance of evil, and all moral incentives to actions whatsoever,"—"which have substrata upon which incident excitor impressions impinge, and from which motor impulses may be derived. The impulse in traversing the ideagenic substrata changes the other substrata, in a series; sensations and ideas arise, and new substrata are formed; psychical substrata are formed according to the division of the grey matter. The energy of the muscular act, will depend upon the excitability of the grey matter at the point of reflex cerebral action and upon the extent of affinities between the impinging impression and the recipient substrata. The size and motor force of an organ will be in proportion to the number and strength or quality of its ideagenic substrata." Dr. L. speaks of these strata as being dislocated!—(*Vide Lond. Lancet, Aug.*, 1845.) The language, the doctrines, and the complex apparatus concerned in this reflex explanation, are alike incomprehensible and suspicious.

This jargon daily increases, though, as yet, it is chiefly endemic to Europe.* Everything is becoming reflex, not excepting generation! We read of reflex nutrition, reflex development, reflex remedies; strychnia travels along the motoriferous tract, while morphia takes up the line of march along the sensiferous. This great double railway the phrenologists, as above-mentioned, have ably extended to the encephalon, where it would seem the terminus is to be located, among the psychical strata and substrata. In plain English, the brain, composed as it is of albumen, phosphorus, water, &c., becomes afferent, efferent, reflex, and if need be, perhaps, circular too.

Not content that the anterior roots shall preside over motion and the posterior over sensation, according to Bell and Magendie; not content with Dr. Hall's addition, which is supposed to explain these functions, the advocates of this doctrine threaten to absorb much of physiology and pathology, together with the whole of mental science. Dr. Laycock says (*London Lancet, Sept.*, 1845), no mental phenomena whatever are exempt from the laws of reflex action. By the term psychical substratum, I mean a material substratum—a definite arrangement of matter, &c.; contractility "in a decapitated frog" (The frog! the frog!) "is excited by a substratum in the spinal ganglia." To dwell in this region of mental geology, among the "*psychical strata possessing a definite material arrangement*" (mark it! the mind material! indefinite strata, like the coats of an onion!) is foreign to our present purpose.

The theory of muscular contractility connects itself with sundry vital, chemical, and electrical speculations, which, if not more justly founded, possess a wider range than the anterior roots of the spinal column. Bichât, like Abernethy, refers contractility to life alone; to have life is the only condition necessary to muscular contraction, which latter is the effect of an active vitality.—(*Researches on Life and Death.*) Professor Draper, of New York, in his beautiful work on the chemistry of plants, denies a vital force *per se*, while Broussais regards contractility as a fundamental property of life, if not life itself; even sensibility is, according to him, one of the results of contractile movements.—(*Path.*, 104 and 64.) Professor Harrison, of New Orleans, explains muscular motion and life also, as chemical actions: "From some unknown combination of circumstances that occurred in lost geological eras, carbon united with water, organic matter was formed from inorganic, and life commenced."—(*Nerv. Syst.*, p. 200.) It will be seen in the sequel, whether non-vital and chemical theories will explain all.

The electric theory of life and contractility has, in a great degree, overshadowed all others. Professor H. M. Edwards, says, "Electric currents act upon the muscles in the same manner as the nervous influence, and which it plausibly explains."—(*Anat. and Phys.*) Indeed, Dr. W. Philip says these fluids are identical, while M. Matteucci, in his late prize essay on this subject, wholly denies the existence of these electric fluids or currents in the nerves, and maintains that all electrical actions in the body, are not the causes but effects of vital changes. According to M. De Manneville (*Précis, etc.*), and Dr. Searle (*London Lancet*), life is but the sum of electricity. Dr. S. Dickson, of London, asserts, that "Life is electricity in its highest sense, it produces all the changes in the living body, the brain and nervous system being the electric apparatus; the nerves, the moving powers. A remedy is a repulsive or attractive force, and acts by an electric vital affinity solely." But, according to him, "*Medicina non agit in cadaver.*" "Bark is a motive power." It might be urged that the motive power in post-mortem contractility is quicker than bark, and slower than electricity.

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* Dr. Gregory, in his beautiful Introductory Lecture (Oct. 1, 1845—*Med. Times*), says, "The functions of the nervous system, direct and reflex, are now slowly developing themselves."

Haller was aware of the influence of the spinal cord of certain animals over the muscles, when under galvanic excitation, or when pricked with a sharp knife, though he does not refer to the posterior roots.—(*Phys.*, cccciii.)

I know not that the spinal marrow in the human subject has ever been tested in the living state, by pricking or scratching; and, as to exciting contractions in this manner in the dead body, *credat Judæus!* In the examination of the spinal cord of many subjects, only a few minutes after death, not a case of contraction was seen, though, in the ordinary method of cutting, chiselling, and sawing on each side of the spinous processes of the vertebræ, all the roots of the spinal nerves, as they escape from the bony canal, must be irritated in every possible way by pricking, scratching, bruising, pinching and dividing. Haller, and, I believe, all the electricians who have since his day experimented on this matter, constantly speak of convulsions being produced in the muscles. Now, a quivering, oscillating, agitated, irregular, or convulsed motion, is very different from regular intermitting extensions, pronations, supinations, which, in truth, simulate voluntary movements; of which we will say more hereafter.

The "Medico-Chirurgical Review" gives the following account of the recent experiments of MM. Longet and Matteucci, who describe the effects of electricity on the posterior or sensitive roots of the spinal cord:—

> "When these were separated from the cord, no contractions were excited by the electrical current, whatever its direction. But when they were still adherent to the medulla, they always gave rise to convulsive shocks on closure of the circuit, whether the current was inverse or direct. It was evident, however, that these convulsions were owing entirely to a reflex action on the anterior roots; for, when the latter were cut across, all contractions instantly ceased. An interesting point, which their researches have elucidated, is the function of the anterior columns of the spinal cord, which are shown to possess an exclusively motor function."

I find, on referring to the transactions of the Academy, that M. Matteucci's paper on "Galvanic muscular currents" (*sur les courans galvaniques musculaires*), is founded on observations upon frogs continued from day to day for five months. These frogs were all taken from the same pond; some were killed to ascertain the contractile function—(*pour en* *mesurer le courant musculaire*); others were exposed to different temperatures and gases. His grand conclusion from the whole is, that the muscular current is proportioned to the activity of the respiration! At best, this is only a piece of frog physiology, that may not have anything to do with human physiology. Nothing in the history of fashion can be more extraordinary than the *penchant* of physiologists for that ugly, amphibious animal, the frog, so unlike man in its structure, respiration, circulation, temperature, and maladies; yet it seems to be the type for all things concerning human beings, not excepting inflammation and muscular contraction. Why not include gout, consumption, cholera, and mesmerism? The sacred Ibis was never so honored by the Egyptians as is this ranine amphibium, by the *savans* of our day. As this great idol of experimenters is capable of living at the bottom of a frozen pond or lake during half the year, and may be skinned, nay, decapitated without losing the power of locomotion for a considerable time; it must be admitted that its vital versatility is well adapted to prove almost anything, especially when aided by a few assumptions and manipulations of a galvano-neurological character!

The sequel will show the infinite superiority of the motor power of a slight blow with the operator's hand, compared with all this mummery of electrical batteries, with the anterior roots of the spinal marrow of the dead and dying frogs. Will any candid man pretend that the convulsions excited among the muscles by such an overpowering agent as electricity, which shivers in an instant the mightiest oak of the forest, are at all like those repeated, intermitting, deliberate, lifelike flexions, extensions, pronations, and supinations, not complicated with horrible vivisections as described in the following pages? Is it warrantable, is it praiseworthy to resort to the very worst kind of proof in preference to the very best, to complicate that which is simple, and to reason reflexively instead of directly?

Bichât could not excite contractions of the heart, nor of the other organs of organic life, by electricity, though he experimented upon criminals freshly decapitated, the most favorable subjects imaginable! In subjects but a few minutes dead from fevers and other maladies, blows, pressure, scratches, and pricks, are equally powerless in exciting these very organs, which, in the language of Haller, "are exceedingly tenacious of their *vis insita*" (ccccii.). Where is the proof that galvanic electricity has ever caused the regular systole and diastole of the heart, or the peristaltic movements of the intestines, even in the inferior animals simulating physiological action? Far from being identical with, is it not opposed to life? The heart of some of the inferior animals when removed from the body acts somewhat in its physiological character as an involuntary muscle for a long period, without a galvanic battery, and without "acrimonious" agents, as Haller would say, blood, water, or air alone being necessary.

Passing by John Hunter's assertion, "that the muscle can as little relax as it can contract after death," we come again to the *vis insita* of the illustrious Haller; an assumption or hypothesis which the researches of nearly a century have not surpassed for ingenuity. "The *vis insita* is," according to him, "peculiar to life, and the first few hours after death (*First Lines Phys.*, cccc.); it may be excited (it is Haller who speaks) by a sharp instrument, and in the hollow muscles by air, water, and every kind of acrimony, but most powerfully by electricity;

it is peculiarly active in the heart, stomach, and bowels."—(ccccii.) It is, I repeat, not a little remarkable, that these are the very organs in which Bichât never could excite any motion whatever by galvanic electricity. During the Reign of Terror the guillotined were delivered to him by the authorities, in from 30 to 40 minutes after execution; yet he declares that in some every kind of mobility was extinct, and that in none could the organs of organic life be excited. He, therefore, concludes, "that with respect to galvanic phenomena, as in all others, there is a wide difference between the muscles of animal and those of organic life."—(*Res. on Life and Death.*) A conclusion which all my experiments in percussion seem to confirm. In the human subject, I have, frequently, in a few minutes after death, compressed the heart *in situ* with the hand for a moment, and then relaxing and compressing alternately, but always without producing any motions analogous to that concerned in the circulation. I do not consider that the salient but delicate ridge or elevation in the tract of a scratch or prick as possessing this character. This view is deemed very important. The muscular fibres of the heart belong, in this respect, to the muscles of animal life, a distinction that has not been adverted to even by Bichât, nor others, so far as I recollect. The heart, in its great leading function as a muscle of organic life, cannot, strictly speaking, so far as I have seen, be made to contract by a blow or a prick, though I cannot speak of frogs. When the wavy line which rises from a scratch is called a contraction of the heart, the reader is almost sure to receive a wrong impression. The "signal experiment made with the scratch of a needle in the heart by Dr. Fordyce," quoted by Dr. Dunglison, in his valuable work on physiology, should be understood as causing contractions of the muscular tissue at the point of contact only. In this case, however, the meaning is scarcely ambiguous.

Haller's experiments, without doubt, were made on the inferior animals; Bichât's were made on man; so were mine. In many robust individuals, opened in less than half the time after death designated by Bichât, I have never seen a fact which in the remotest degree confirmed Haller's doctrine, namely, that the *vis insita* is peculiarly active in the heart, stomach and bowels. In not a few of these subjects, I have the best reason for supposing that the capillary circulation was still active. The functional contractility of the human heart, the *vis insita* of Haller, is believed to be visionary in the cadaver, though this organ is susceptible to the contraction which I have described.

Whether these experiments be of any value or not, I trust that candid men will not estimate them the less when I say that they were made, not to order, but rather incidentally, while engaged in pathological inquiries which occupied my attention almost entirely. For nearly two years after I first noticed post-mortem muscular contractility, I seldom thought of its special application to the reflex theory. I viewed it as a curious, and, so far as I knew, an original observation. During an attempt to produce contusions on the recently dead body, I happened to select a spot over the middle of the biceps; a blow there (the arm having been extended on the floor) caused the subject to slap his hand against his face with much force. I was almost as much surprised as was a black man that I hired to aid me in a private dissection, in St. John the Baptist street, in 1842, of the body of a gentleman of much travel, who died of remittent fever. Previous to this dissection, which was two hours after death, I struck the arm with the inferior edge of my extended hand. The subject contracted his arm, carrying his hand to his breast. My aid looked to the door, which had been closed beforehand, and begged to be let out without delay.

It was, therefore, very recently that I began to regard contraction thus excited in its most elementary character, as an important point of departure in the analysis of some of the most interesting problems in physiology,&c. It cannot be repeated too often, that the simplicity of a method is a great recommendation, while complexity gives rise to suspicion when an explanation is offered, and at the same time, increases the chances of error. Professor Liebig has said with much force, that " if a method of investigation bear in any degree the stamp of perfection, the result may always be given in a few words ; but these few words are eternal truths."

I take for granted, until the contrary is established by experiment, that the reader will admit as true the facts set forth in this monograph. It may be asked, however, whether these facts are new ? I know that certain men declare that there is nothing new in medical science. Let such read Jeremy Bentham.*

What does Sir Charles Bell say of the muscular motions which he excited, and upon which, he, more than on anything else, founds his great discovery—if such it be ? I say nothing of the kind of animals upon which he experimented ; nothing about his knocking them half dead by blows on the occiput ; nothing of the complex and uncertain character of a dissection of the spinal cord of an animal which might have been dead or alive, for aught we know. His own account shows what kind of contractions his experiments produced. In his work on the nervous system, he quotes with approval, M. C. Hawkins's account of these experiments, " which," as he says, " show that when the anterior roots were pinched by the forceps, or pricked by the scissors, an evident motion was produced, perceptible to the eye ;" he even goes on to insist that this was something more than " the slight tremulous motion from the natural irritability still remaining in the muscles." It is most evident that he never dreamt of regular, periodical flexions and extensions of entire limbs loaded down with heavy weights. His *experimentum crucis* on the motor roots caused a motion "merely perceptible to the eye." This was the *ne plus ultra* of *that muscular contraction* which he could excite by pricking and pinching, under circumstances presenting the maximum of uncertainty.*

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* " Wisdom of ancestors," says Bentham, " is a Chinese argument. The reigning prejudice in favor of the dead lies not very deep—a dead man has no rivals—to nobody is he an object of envy,—in whosesoever way he may have stood when living, when dead he no longer stands in anybody's way. If he was a man of genius, those who denied him any merit during his life, even his very enemies, changing their tune all at once, assume an air of justice and kindness which costs them nothing, and enables them under pretence of respect for the dead to gratify malignity to the living. Another class habitually exalts the past for the purpose of depressing and discouraging the present generation." " You may turn over whole volumes of antiquity without discovering a solitary truth to make amends for your pains. For ten propositions evidently false, and ten times the number of unintelligible ones, you will scarcely find a single one that is true. A preference for the ancients is a most pernicious prejudice, reversing the whole order of nature. The acorn must be larger than the oak it will become. A man must be wiser in his mother's womb, than in the vigor of manhood. Everything must grow backwards. New experiments added to the subsisting stock must lessen the number. It is scarcely possible to believe a man to stand *bonâ fide* on so noxious a system. If he do, grieve over him, but treat him as an enemy to knowledge and to that happiness which is founded upon knowledge. The public interests require that his notions rise not into credit."—*Bentham's Book of Fallacies ; Deontology.*

Has muscular contraction, by the percussional method, ever been pointed out by authors? Have they noted contractions without any shortening of the muscle, though accompanied with an enormous augmentation of volume and density at the points of contact? Have they ascertained, fixed, and made known the laws of muscular action, as developed by this most definite and simple of all methods, divested as it is of volition and all psychological phenomena? Have they described a case of complete motion of the whole limb, not only including flexion, but extension, pronation, supination,—in a word, all the elementary, physiological actions, simulating the voluntary movements, though less varied and more slow; but, more than all, have they illustrated the great law of contractile periodicity, excited *per se*, in a manner very different from the unmeaning convulsions of electrical action,—from the unmeaning action of a "scratch or prick with a sharp instrument?"—I say unmeaning, because no definite actions are produced resembling those called physiological. The use of the phrase "sharp instrument," from Haller's time to the present, speaks volumes in favor of my position,—for a dull instrument, as a shingle, cane, the flat side of a hatchet, or the operator's hand, is infinitely better, because it moves the entire limb, whereas, a scratch causes nothing of the kind, giving rise to nothing but a delicate ridge or line, like a thread, in any direction across a muscle, diagonally, triangularly, or in curves, as the case may be.

It is not, then, the silence of authors upon which the greatest reliance is to be placed, in claiming for this method of investigating muscular contraction, something of originality. All writers, so far as recollected, especially writers on Medical Jurisprudence, in treating of the signs of the certainty of death, rely much on muscular contraction, or as I should say, on its absence, as the most indubitable sort of proof. During the present year, M. Cadet De Grassicourt, a French writer, proposed, as the best method of ascertaining the reality of the supposed death, to dissect down to the muscles and prick them—a common recommendation in such cases,—"As if a man be dissected to see what part was disaffected," and this, perhaps, during his lifetime! (I regret that I cannot stop here to examine into the fallacy of this TEST, which would go to prove the absence of real death, or the possibility of resuscitation after the removal of the brain, spinal marrow, the viscera of the chest and abdomen, and the amputation of the limbs, at from six to eight or fourteen hours after death!) Now, as percussion is the only perfect and safe method of exciting contractions, I cannot suppose that there is a single medical man, who, knowing this, would lay bare, by a surgical operation, the muscles of a person supposed to be possibly alive, in order to apply a test of little or no value, when one of the greatest value could be commanded by a simple blow of the inferior edge of the operator's extended hand, insufficient in force to injure a living person. Here, as in law, the rule should be that the best evidence ought to be procured.

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* Few foreign authors have been so much venerated among Americans as C. Bell, though this *discovery*, so called, contributed little to this end; so of Dr. Hall. To speak of one so estimable as Bell, who has instructed and delighted us all, in any other way than than that of eulogy, may not be without some risk of giving offence now that he is numbered with the dead, while his doctrine on which he spent much of his life is in the ascendant. In a communication in the "Med. Chir Rev.," Jan., 1834, relating to M. Müller's experiments, confirmatory of Sir Charles' discovery, he even labors to depreciate experiments, and prefers "to build on *anatomy*"—prefers "the *vital powers* to the *galvanic* conducting powers of the nerve." Now, all this may be very true, but is very fatal to his own experiments, since mere anatomy explains nothing of the supposed functions of the roots, anterior or posterior. It is not so surprising that this doctrine, so founded, "was not received," as he himself assures us, "with some show of interest." Its present success is still more puzzling.

During the last ten years, many French authors, candidates for the prize founded by Professor Manni, of the University of Rome, to be awarded by the French Academy of Sciences, have written ably upon the signs of apparent and absolute death, with a view to prevent premature interment, etc. In this question, which is still open and undecided, much importance is constantly attached to contractility, or rather to its absence, requiring a dissection in order to expose the muscles for this test! It is, in fact, a fundamental point which is made paramount to all other signs of death anterior to putrefaction. The celebrated "Nysten recommends this as a certain criterion of death—to lay bare the muscle and prick it, or apply the galvanic or electric fluid." (*Prof. Guy's Med. Juris., by Prof. Lee*, 1845, p. 372, *et seq.**) These, though negative proofs, are nevertheless sufficient to show that the method I have adopted to excite muscular contraction is wholly unknown, or absurdly rejected. Why should a very simple matter (I ask once more) be thus complicated by galvanic experiments, dissections, and reflex logic, seeing that a blow direct with the hand will produce results more definite, more like the acts of vitality and volition? If an arm, from six to fourteen hours after death—hours after the dissection of the body, and after being severed from the trunk at the shoulder-joint, contract with the utmost precision, how can gentlemen say "that the anterior columns of the spinal cord possess an exclusive motor function"? Whatever agency these roots may have when galvanized, they are incomparably inferior to the motor power of the muscle when excited by the hand, the hatchet, or a cane. A hand, or a hatchet, or a cane-theory, ought to have the preference over the reflex theory, as the former is not only the most simple, but the most scientific, affording a nearer approximation to the known physiological functions of man. Of this, the sequel will afford evidence—evidence which was scarcely sought for, but which came of itself, incidentally—evidence, simple, plain, and direct, and not obtained under the tension of any theory whatever.

My experiments, though very numerous, might have been multiplied threefold; they are already sufficiently unwieldy, and do not easily admit of analysis. I will, therefore, give a few cases taken almost at random, as found among several thousand folio MS. pages, nearly all being yellow fever subjects, which are incomparably the best for studying post-mortem contractility. It is more than probable that my most striking cases are omitted, as, at the time of making the observations, I did not fully appreciate their importance. I have omitted all cases not particularly described, that is, such as were mentioned in such general terms, as "*contractile*," "*contraction active*," "*strong contractility*," &c. This I now regret, as well as the omission of many experiments which I could name, but most of all, such as might illustrate the almost incredible doctrine of counter-contraction, which, in despite of my notes, I would like to reconfirm upon a larger scale.

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* This work contains an enumeration of the signs of death, which, with the other topics treated of, are more clearly and compendiously stated, than in any work I have seen from the foreign press. Dr. T. E. Beatty (*Cyc. Prac. Med.*) maintains that "Galvanism is the best test of the reality of death; for, if the muscular fibre do not obey it, there can be no doubt that vitality is extinguished." Galvanic contraction is no proof of the presence of life, or of the possibility of resuscitation.

Miscellaneous cases illustrative of the general phenomena of post-mortem Contractility :—

Case I.—O. D., an Englishman, aged 26. From fifteen minutes to several hours after death, raised his fore-arm to the perpendicular as often as its flexors were struck ; the motion was slow, the ratio of contraction and relaxation appeared uniform, occupying about half a minute.

Case II.—E. M., an Englishman, aged 37. At thirty minutes after death, afforded similar results. The experiments were often repeated, at prolonged periods ; the contractions and relaxations were supposed to occupy about 30 seconds each. The flexion ceased at the perpendicular in every instance. When the experiments ceased, the muscular force continued at its maximum, having lost nothing.

Case III.—O. S., an Englishman, aged 27. Like the last.

Case IV.—W. O., an Englishman, aged 27. Dead five hours ; neck moderately stiff; brain, 93° ; epigastrium, 100° ; chest, 93° ; thigh, 99°. The arms strongly contractile, but the motion was slow and uniform, requiring several seconds to produce flexion and relaxation.

Case V.—H. O., a German, aged 32. Presented one hour after death active muscular contractions of the arms, which soon disappeared after a few blows, the neck being stiff; other parts flexible.

Case VI.—J. Q., a German, aged 24. Fifteen minutes to one hour after death, everywhere flexible ; powerful muscular contractions ; the neck became stiff ; the legs and arms soon after.

Case VII.—S. G., a New Yorker, aged 22. Precisely like the last case.

Case VIII.—J. M., a Virginian, aged 31. Like the last.

Case IX.—J. R., a Marylander, aged 25. Was observed for one hour after death, during which time the biceps at intervals contracted vigorously.

Case X.—D. H., a German, aged 22. For more than an hour after death, carried his hand to his nipple as often as the extensors were struck—the jaws being rigid ; 109° to 106°, for two hours.

Case XI.—Miss S., aged 26. An hour after death presented slight rigidity of the arm ; one was extended ; a blow caused it to rise quickly to the perpendicular, from which it slowly returned, requiring many seconds, perhaps a minute or two. Three similar operations destroyed the contractility. The fingers soon became stiff, then the arms, next the legs, but the neck was limber for three hours. The heat generally 107°, descended in the axilla, at four hours after death, to 103½°.

Case XII.—F. L., a Frenchman, aged 58. Dead about one hour ; heat 107½° to 103° ; possessed the contractile function strongly, carrying the hand to the breast; also performing pronation and supination according to the percussion. The abdominal muscles were rigid.

Case XIII.—This subject had been dead two hours; he lifted his arm quickly and often, several feet from the table, sometimes striking himself in the face with force.

Case XIV.—J. A., an Irishman, aged 39. Dead three to four hours; heat 107° to 103°; neck very rigid; arms highly contractile.

Case XV.—J. G., a Baltimorean, aged 24. An hour after death, like the last; 108°.

Case XVI.—J. P., a Scotchman, aged 22. Dead one hour and a half; raised his fore-arm perpendicularly twice.

Case XVII.—R. C., a Kentuckian, aged 25. In two hours after death, when the arm was extended to an angle of 45° from the trunk, and was struck with my hand, or still better, with the side of the hatchet, carried his hand to his epigastrium; but when the arm was extended upon the floor, so as to form a right angle with the body, he slapped himself upon the mouth and nose. The contractility began to decline in the third hour, and by the fourth hour all motions of the limbs ceased, though the pectoral muscles assumed the ridgy or lumpy form when percussed. An hour after death the thigh was moderately contractile. The leg hung down near the floor; its flexors, after being struck, drew up the heel against the buttock. Heat for seven hours, from 111° to 102°. Five hours after death contractility ceased, and rigidity prevailed.

Case XVIII.—J. H., a Virginian, aged 30. Bled enormously, and cupped much; dead a few minutes; had contractility less than a quarter of an hour; dragged a hatchet along the floor, not being able to raise it. The heat, which was usually low, continued as long as observed, that is one hour and a quarter, without varying materially, not exceeding 102½°.

Case XIX.—N. E., an Italian, aged 25. Dead about one hour; heat 107° to 106°; recti muscles had contracted into indurated masses like knots of wood; neck rigid; the arm raised a weight, say 2 to 3lbs. fastened in the palm, carrying the hand to the umbilicus several times.

Case XX.—*Remittent.*—Mr. S., aged 45. Dead two hours; legs becoming rigid; struck the flexors of the arm with the inferior edge of my hand; the cadaver raised his arm with a regular, slow movement, placing his hand upon his breast: as soon as the muscles relaxed, he carried his arm back, extending the same. The experiment was repeated three or four times, when the arm fell back exhausted. The blows were now made with a piece of wood. The biceps gathered up into a lump, at the place where the blow was given, but failed to move the fore-arm.

Without attempting to give all the details of post-mortem contractility, it may be necessary to enumerate a few of its leading features.

Béclard asserts that the most remarkable and best established fact in the muscular action is, the shortening of the muscle during contraction; that its swelling is caused by its shortening, each compensating the other mutually.—*Gen. Anat.*

It is natural to every muscle, says Haller, to shorten itself, by retracting its extremities towards its belly or middle; when in action, becoming shorter and thicker (cccci.). Whether this doctrine be true of galvanic muscular contraction, I do not know, but I am certain that it does not apply to post-mortem contraction,—because it often happens that both the fore-arm and elbow-joint are stiff and immovable, while the biceps may be powerfully contractile, its belly swelling up into a hard lump; relaxing and contracting repeatedly, and unavailingly, owing to the rigidity at and below its insertion in the arm. Here, it is evident that the indurated swelling is not owing to the approximation of the two extremities of the muscle, for they are fixed. The increase of volume seems to be owing to an expansion with rigidity among its elementary fibres; a zigzag oscillatory motion upon the summits of the contracting masses is visible to the naked eye. Much evidence might be produced besides the following:

Cases of Post-Mortem Muscular Contraction without shortening in yellow fever Subjects.

Case XXI.—H. F., a German, aged 28. Dead four hours, and dissected. The fingers and toes flexed and rigid; the biceps and gastrocnemius contracted, but without causing motions, as the limbs were rigid at their extremities.

Case XXII.—R. P., an Irishman, aged 24. Dead ten hours; fore-arm rigid; the biceps contracted strongly, but the rigidity in and below the elbow-joint prevented flexion. Blows with the knuckles over the pectoral muscles caused them to heave up into knotty masses.

Sometimes, post-mortem *rigidity sets in during the paroxysm of contraction*, producing a very singular phenomenon, a hard mass, which, continuing for hours, feels like bone. I have known this to be mistaken for a fracture badly set, or for a bony tumor.

Case XXIII.—J. C., an Irishman, aged 26. From one to three hours after death, the arms performed complete flexions and extensions; heat from 109° to 102°; six hours after death, the arms could not be extended without cutting the muscles, which were indurated and elevated at the site of the blows, having assumed the same arrangement as at the maximum of contraction.

Cases illustrative of the Increase, Declination, and subsequent Resuscitation of Post-Mortem Contractility; all being yellow fever except the last.

Case XXIV.—From four to five hours after death, and two hours after dissection, and the removal of the entire viscera, the *cadaver* being warm and rigid, great force was found necessary to extend the arm to a right angle with the body—extensions, flexions, and frictions were used, after which, a blow caused the fore-arm to rise until the hand pointed to the zenith; the motion was slow and equable; a second blow caused a slight motion without elevating the arm.

Case XXV.—A. G. G., a New Yorker, aged 30. In a few minutes after death, presented but feeble contractions, which, in half an hour ceased for a time. But soon after the contractile function returned to the same arm with much force, but after repeated blows it was exhausted a second time. Again, after a similar interval, it returned with a like force a third time. In three hours the rigidity, beginning in the neck, extended itself to most parts of the *cadaver*. The blows were found to have caused well-marked contusions, cellular ecchymoses, &c.

Case XXVI.—C. L., an Irishman, aged 31. Was observed from five minutes to an hour after death; the contractility was found to be active, but after appending a weight of 2 to 3 lbs. to the hand, the arm was unable to raise the weight more than twice; a third blow caused the biceps to be convulsed; it gathered up in a knotty heap, which, by forcible extensions and frictions, was, at length, removed temporarily, but in half an hour it returned, and was unchanged as long as observed, being to the touch like a bony tumor.

Case XXVII.—C. S., a German, aged 50. Observations from fifteen minutes to two hours after death; heat from 109° to 102°; the contractility, though strong, was extinguished in the right arm by five or six blows. The left arm, about two hours after, was somewhat rigid, but frictions and extensions caused the contractile function to revive again.

Fracture of the Leg—Gangrene—Death.

Case XXVIII.—J. A., a German, aged 33. Dead two and a half hours; winter, room 54½°; a single blow with the flat side of the hatchet produced flexion, but exhausted the contractile force for half an hour, when it slightly returned. The supinators and pronators acted for an hour longer than the flexors of the arm; the experiments ending five hours after death.

The Destruction of the Contractile Function in one arm does not affect the other; this rule has no exceptions, and is illustrated in the following Yellow Fever Cadaver:

Case XXIX.—S. F., a Cincinnatian, aged 24. Dead half an hour when the experiments began. The right arm was struck with the flat side of the hatchet, the hand was carried to the ear; the second time to the mammary region; a third to the perpendicular; a fourth caused but a slight motion, and two more, more severely laid on, completely killed the contractility, leaving the print of the instrument as upon dough. In an hour after, the left arm was found to be contractile as the right had been, if not more so. The thigh, two hours after death, and an hour after the removal of the viscera, gave nearly 107. Other cases illustrative of this point are deemed superfluous.

If several blows on the same spot follow each other rapidly, there is but one contraction, but they exhaust the contractile function more than a single blow; if the force be greatly augmented, the contractility may be killed, almost immediately, in the muscle struck, without impairing the action of any other part.

This force has no resemblance to that purely physical property of bodies, called elasticity. A man may stand on the hand of the cadaver while the blow is being made on the biceps; let him then step off the hand, and the contraction will follow as usual. If the power be feeble, the relaxation will be quick in most cases; the arm will fall back upon the plane from all points short of the perpendicular, each elevation being less than the preceding one, until the force is expended. Should the hand pass its meridian, gravitation will of course aid the contraction in bringing it to the trunk.

The blood has no appreciable influence upon post-mortem contractility, because when the limb is severed from the trunk and drained of its blood, its action is not thereby diminished. Hence the following statement by Sir Charles Bell in his work on the hand requires, at least in the dead subject, some modification :—

"The muscular tissue has a living endowment, a power of contraction and relaxation, which is supplied by the circulation of the blood, the source of all vital power."

In some instances, as in the following, great losses of blood before death were not preventive of the most intense post-mortem contractions.

Much Ante-mortem Hemorrhage, moderate Post-mortem Caloricity, with powerful Contractions :—

Case XXX.—M. D., a female, aged 30. Dead half an hour; had an enormous sub-mammary effusion of blood, forming a bed two feet in circumference, amounting to several pounds; the fore-arm was raised, and the hand brought to the umbilical region after each blow; in three hours slight rigidity was noticed in the neck; in five hours, when burial took place, every joint not included in the neck, was perfectly flexible. The axilla and vagina did not range above 100°.

The difficulty, perhaps I should say impossibility, of showing any exact and necessary connexions between cadaveric contraction, flexibility, and temperature, will be best illustrated by giving an outline of a few cases. It will be seen that contractility may be present where the heat is, at least, very moderate, and where it is greatest for seven hours after death, that rigidity may take place much in advance of the maximum heat. Rigidity is at first local, often irregular, and sometimes absent as long as looked for, and may possibly never take place, as I might more fully show were it necessary. Contractility may take place during the rise or fall of the temperature, indifferently and in one region, while rigidity may prevail in another, and is sometimes absent in cases where great heat and flexibility are present.

The following are Cases illustrative of Contractility in connection with Post-mortem Calorification and Partial Rigidity; the maximum and minimum temperatures being included :—

Case XXXI.—J. K., a Philadelphian, aged 25. In fifteen minutes after death presented the contractile phenomena in its most intense form, but which declined wholly in one hour, the body being everywhere flexible. In half an hour after rigidity set in. This body, which before death had been remarkably cold, had a temperature after death as high as 109°, and which did not refrigerate below 104° in three hours after.

Case XXXII.—L. S., a Swede, aged 48. In three hours after death was rigid in his legs, neck and jaws. The arms had lost nearly all contractility, while the axilla and perineum, each, gave 109°; at five and a half hours the heat was still 103°, long after rigidity had become general.

Case XXXIII.—J. H., an Irishman, aged 36. Of gigantic frame, estimated at 200 lbs.; in fifteen minutes after death the neck, jaws, and recti muscles were immovably fixed—the contractility of the arm being very powerful. In an hour and ten minutes the rigidity became universal, the thigh being at 107°. In one and a half hours the epigastrium was at 106½°, and the brain 101°.

Case XXXIV.—S. G., a New Yorker, aged 22. In fifteen minutes after death, presented contractility in its most active form; the entire body being flexible, but soon after the neck became stiff, then the legs, arms, &c. The temperature in the axilla and thigh exceeded 107° ; in an hour and a half it was nearly the same: in three hours the thigh was 100°.

Case XXXV.—J. Q., a German, aged 24. In three fourths of an hour after death was universally flexible, and contractility was powerful, temperature 109° ; in an hour rigidity took place. In two and a half hours the heat was nearly 107°.

Cases without contractility, showing the temperature to be high with or without flexibility.

. Case XXXVI.—J. S., a German, aged 29. One hour after death, rigid in the neck and legs, moderately so in the arms ; axilla, chest and epigastrium, each 107°, thigh 104° ; in about four hours universal rigidity, thigh 105°.

Case XXXVII.—C. B., a New Yorker, aged 23. In one hour after death, neck rigid, legs and arms moderately so ; universal rigidity in two hours ; the thigh did not reach its maximum, 104°, until sixteen minutes after.

Case XXXVIII.—M. H., a German, aged 32. In about fifteen minutes after death was everywhere flexible ; in half an hour the limbs, which were without contractility, became stiff, the thigh being nearly 107° ; two hours later the latter was 106°.

Case XXXIX.—G. L., a German. At two hours after death had flexibility of the neck and rigidity of the limbs and recti muscles, with a heat of 104° ; in four hours the body, excepting the neck, was very rigid, the heat being only one degree less in the centre.

Case XL.—J. F., a female. In two hours after death was extremely rigid in the superior extremities ; the neck, legs, &c., being limber ; the heat being 104°, and in an hour after 105° ; at three and a half hours, neck limber, legs, &c., stiff ; heat 104°, and at the fifth hour $102\frac{1}{2}$° ; at the seventh hour the thigh was 100°, the body rigid, and the neck still perfectly limber and as at first.

The continuance of, or rather the degree in which post-mortem heat is evolved bears no proportion, I repeat, to the intensity of post-mortem contraction. The great heat developed in the dead body, I have endeavored to illustrate in the medical journals of our country, and will not, therefore, dwell upon that subject at present. I find, however, on examination of the original papers not yet published in detail, that for the most part, when the heat had declined, the contractility was exhausted, but that the presence of great heat, ranging as high as 113°, did not by any means imply the presence of contractility, nor the absence of rigidity. Authors seem not to have been aware of the augmentation of animal heat after death ; some have, it is true, noticed an increase of heat after death from cholera, compared with the extreme coldness of the surface during the last hours of life : but has any one hinted that this post-mortem heat ever rose as high as even the healthy standard, to say nothing of 14° or 15° beyond that ? I mention this merely to explain what MM. Orfila and Nysten mean by *animal heat*, when they assert " that rigidity is incompatible with its presence."—(*Todd's Cyc. Anat. & Phys.*) Dr. Beatty advances the same doctrine (*Cyc. Prac. Med.*) ; so does Béclard (*Gen. Anat.*), not to name many others. Nothing can be more erroneous. The heat often increases with the rigidity.

*Post-mortem contractility, in the human cadaver, has no connection with or dependence upon, the spinal marrow. This may be received as an axiom, though directly opposed to the reflex theory, and is easily proved by amputating the shoulder in a proper manner.** In performing this operation, it is best to leave a few portions of the skin undivided, so as to tie the arm down to the trunk, so that the former during action may not turn quite over. I select the following yellow fever cases for illustration.

Case XLI.—A. M., a German, aged 30. More than four hours after death, and one hour after dissection, possessed the contractile function in a high degree. An arm was amputated so as to include the scapula and its muscles ; after which, blows were repeatedly directed upon the flexors of the fore-arm, which was as often elevated to the perpendicular ; one of the inferior extremities, an hour after amputation at the hip-joint, being generally rigid, presented, nevertheless, contractility in the form of massive ridges at the places of contact from blows.

Case XLII.—P. L., an Irishman, aged 20. Dead four hours before the experiments were begun. Both fore-arms raised themselves to the perpendicular several times. The left arm was amputated so as to include the scapula and its muscles. Twenty ounces of blood by estimation were rapidly discharged by the operation. The temperature had ranged for more than four hours in different regions, at from 34° to 33° of Réaumur (nearly 109° to 106½° of Fah.). The arm was more contractile after than before its separation from the spinal marrow, rising after each blow without any loss of motor force as long as observed.

Cases showing that Amputation of the Shoulder, and the subsequent Division of all the Nerves, Vessels and Muscles of the Arm, except the perpendicular Flexors of the Fore-arm, do not in the least impair the contractile function either in force or duration :—

Case XLIII.—J. G., an Irishman, aged 32. Dead three hours ; dissected one hour ; viscera all removed from the body ; the right arm was extended, and slapped with a piece of shingle, the force being scarcely sufficient to injure a living person. This blow was repeated at intervals five or six times ; each time the man struck his hand against his shoulder with great celerity and force. A heavy hammer was then tied in the palm of the hand, but even this failed to counteract the muscular force ; he struck himself heavily against the breast. A hatchet estimated at 2½ to 3 lbs., was substituted for the hammer ; with this he struck the breast several times, when the contractility suddenly ceased. One hour after this, and more than four after death, both arms, including the scapulary muscles, were amputated, discharging enormous quantities of blood—hot blood—for the post-mortem temperature had been ranging from 36° to 34° of Réaumur (or 113° to 109° of Fah.); the left arm was extended on the table, resting on the hand and on the olecranon, on the angle of the scapula and the sternal end of the clavicle, presenting the deltoid uppermost. The most active contractions followed every blow, the arm twisted about like a wounded snake, the muscles of the scapula were convulsed. The shoulder having lost its *point d'appui* upon the trunk, the whole arm sometimes turned over, so that the deltoid rested on the table. Gradually, as in the former case, the contractility began to decline. I now severed all the muscles of the arm, in its lower third, except the biceps and brachiales, including all the accessible nerves and vessels, but I found the contractility as active as before. It was, of course, moderate from the previous exhaustion. The amputation at the shoulder, the cutting of all muscles, &c., but the flexors, had not impaired the contractile function in the least. The amputated limbs remained very warm about three hours.

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* We have Bentham's authority, " that no man doth wrong for wrong's sake ;" but still, it would seem, that some will argue for argument's sake. It has been said that the biceps, after cutting off the shoulder, and all the accessible nerves of the arm, and all the muscles not devoted to flexion, *still has nerves* blended with its texture. Hence its contractility ! Now, at the least, this separation from the spinal marrow and division of all the nerves, ought to lessen in a corresponding ratio the force and duration of the contractile function. Yet this never happens. The nervous connexions and influences reduced to zero, leave the muscular force at its maximum. Defeated in the spinal reflex action, these men substitute some invisible nerve ! Drowning men catch at straws. Alas ! for reflex logic !

According to Bichât, the more rapid the death, the more powerful and enduring are the contractions caused by galvanism. This rule has no certain application to yellow fever subjects, in whom percussion produces the greatest muscular activity. Still, however, it must be admitted, as a general rule, that yellow fever, which is so rapid in its march, presents more frequent and enduring cases of contractility than other fevers, according to my experience. But when we come to particularise individual *cadavera* in yellow fever, it will be found very often, that among those who have died most quickly, contractility will be present, or absent, just as among those who had lingered for a longer period.* Judging from the published accounts of galvanic muscular action in criminals after execution, I suppose that the yellow fever subject often presents a greater susceptibility to contraction. Professor Guy "*limits the contractile period in extreme cases to two hours.*"—(*Med. Juris.*)—Professor Dunglison "*to two hours after the cessation of respiration.*"—*Phys.*, vol. i., p. 338.) Percussion, as I have often observed, excites contractions in the yellow fever subject many hours—one to fourteen—after death, and even hours after complete dissection of the brain, spinal cord, viscera, and limbs, and the removal of many pounds of blood, as the case above mentioned will show.

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* The contractile force is to the organic muscular system, what gravitation is to the inorganic kingdom. The one is intermitting; the other unceasing: both are ultimate, and therefore inexplicable principles.

The explanation of muscular action by the anterior roots of the spinal cord, though it meets the eye from every point of the medical horizon, is, I repeat it, wholly unsatisfactory. The same may be said of the pathological facts which are relied on to prove the reflex doctrine. Not to repeat what I have elsewhere said, I will quote ***Béclard***, who, after declaring the spinal cord to have but one office, namely, that of a conductor transmitting a sensation by its posterior, and motion by its anterior roots,—being the seat of the principle of irritability, so that its destruction or removal renders the excitation of motions impossible, adds, that he has made many experiments upon animals, showing that injury of the nerves is followed by no grave accidents—the reunion and the re-establishment functions take place very promptly. (*Gen. Anat., passim.*) The practical Sir Astley Cooper, after many *bonâ fide* operations upon the ***human nerves*** for tumors and the like, having twice removed portions of the great sciatic nerve, concludes, that "wounds of the nerves are followed by little irritation—that they are very rarely inflamed, and that tetanus is the result of injury to tendinous rather than to nervous structures." (***Lect., Tyrrel's Edit.***, vol. i., p. 245; vol. iii., p. 125.)

Mr. John Felix, a young gentleman of veracity, long a resident student in the Charity Hospital, has just informed me that a man who died of a thoracic affection on the 3d of Jan., 1846, fourteen hours after death presented a strong example of muscular contraction, the fore-arm having been elevated to the perpendicular after each blow given with the inferior edge of the operator's hand. I may be allowed to remark, that the professor of physiology should consider his course incomplete without demonstrating the phenomena of muscular action, thus laid bare to the view of his class—a process so slow, so lucid, and so unlike the muscular convulsions excited by galvanic piles, wires, nerves, and the like, as to produce on the minds of the beholder an indelible impression. Here seeing is believing. The explanation, as in all ultimate facts or laws, may be impossible, as in gravitation, attraction, and so forth. This, however, is no valid objection. When a vivisector gives his experiments, we cannot verify them without trailing with him through the blood of animals half dead or killed for the purpose—a method too repulsive to be practised—which cannot be said of percussion, since it does not require a wound even in the *cadaver*. Mr. Brereton, who, by the way, is not, and, I believe, never was a worshipper of the Reflex Idol, says "that according to his experience the reflex action is never developed when *sensation is completely destroyed.*"—(*Lancet*, 1844.) The bare possibility of this is a fatal objection.

Post-mortem Contractility, when excited by percussion, is the best fundamental type of the periodicity of the contractile function,—better, certainly, than that originating in galvanic electricity; voluntary action may be much more perfect; electric action necessarily more rapid. The contraction operates for several seconds or minutes. Relaxation, by which the muscle is made to assume its normal figure, presents another distinct interval. The counter-motion, though less prolonged, is equally distinct. Then comes the period of repose (analogous to that following the fatigue, in living muscles), the forerunner of renewed efforts—efforts, however, which must speedily exhaust the quantum of contractile force for ever. The period of exhaustion may be hastened or deferred, in many cases, according to the manner of procedure. The contractility may be *killed* by a severe blow, especially if at the same time a weight be fastened in the palm. It is worthy of remark, that by a proper application of blows, all the elemental motions of the arm may be produced more or less perfectly, as flexion, etc.

Does percussion act in any sense like galvanic electricity? Let us see. Is the cuticle any barrier to percussion? No. Does percussion require a complete circle of metals, nerves, and muscles? No. Does it act through the anterior roots, or other portion of the spinal cord? No. Does it act in a rapid, inconceivably rapid, convulsive manner? No. Dr. Hooper says, in speaking of galvanic action in frogs, &c., that "contractions can be excited even to the instant of incipient putrefaction," and, if so, here is another great difference. Motion, by this method, is diametrically opposed to every kind of motion known in natural philosophy: it is opposed to the Newtonian law of mechanics, which requires motion to be in a straight line—to be in proportion to the impressing force, and, in the opposite direction, to be equal and contrary to the re-action. A more complete contrast to these laws cannot be imagined, than that a blow, the direction of which is towards the side of the arm opposite the biceps, should cause a contrary motion to that of flexion, to say nothing of a slow intermediate motion incidental to the relaxation of large dense masses of muscle, and, lastly, extension—a counter motion. If we could explain mechanically, that movement which causes the *cadaver* to lay his hand on his breast, where, by the great law of *inertia*, it ought for ever to remain, we must fail to explain the contrary motion, by the same force: dead matter, once at rest, cannot pass into a state of motion by any inherent power of its own. We are, therefore, obliged to admit the existence of a force—a force adequate, not only to overcome the *inertia* of the arm itself, but that of weights placed in the palm: to call this principle chemical, electrical, reflex, or mechanical, is chimerical. If we reject a vital force, in this case, some name, however unmeaning, may be substituted: call it the *vis musculosa*, or the *Essence of Owl*, as the East Indians denominate the agent which causes epidemics (as we are told by Bishop Heber). It is a force totally unlike that from impulsion, since it bears no relation to the momentum, direction, or instantaneousness of the impinging body. It is, as already mentioned, unlike electricity, which would probably travel round the globe thirty times during the period necessary to produce one contraction of the biceps. It is unlike mechanical, chemical, cohesive, and gravitative forces, being *sui generis*. Here we must adopt the last words uttered by the astronomer, La Place, "*Ce que nous connaissons est peu de chose, ce que nous ignorons est immense.*" "We should wander on eternally in darkness," says Bichât, "the moment we quit the plain path of experiment. Let us be contented, therefore, to collect facts, examine and compare them together, and make ourselves acquainted with their general results. Such inquiries can form the only true theory of the vital powers; all beyond it is conjecture."—(*Res. on Life and Death.*) To attempt an explanation of this phenomenon by means of a cataract of such words as reflex, efferent, afferent, chemical, galvanic, is idle. Whenever muscular contraction shall be ascertained to be a simple element, or a compound, having a definite chemical character, then it will deserve a suitable chemical name; until then, an unmeaning, or non-theoretical name, is as good as any; indeed, the *vis vitæ*, is very much of that sort; for, strictly speaking, it represents a mass of facts, not yet rendered amenable to the laws of the physical sciences, rising, as it does, above or beyond inert matter, and being very often opposed to the *modus operandi* of the latter, so far as our present knowledge goes.

The unbelievers in the *vis vitæ*, though often regarded as a sort of atheists in physiology, are, notwithstanding their materialism, no unbelievers at all, except when *vitalism* is concerned. They are sufficiently credulous, in advance of experimental proof, to believe that life is only so much electricity, or galvanism, or magnetism, or chemical, crystallized matter. Even some of the vitalists themselves hold that life is matter of an imponderable and sublimated character.

Were I to assert, that the *vis percussionis*, by exciting the *vis musculosa* or the *vis motoria*, overcomes the *vis inertiæ*, and at the same time maintain that these words afforded an explanation of the phenomena in question, nothing would appear more ridiculous. But, when these terms are used simply to characterize three different classes of facts, often conjoined in a manner wholly unknown, yet so linked together that one follows the other in a definite order, then the case is quite different. The *vis inertiæ*, though apparently the simplest law of matter, is, in truth, like motion by contact, one of the greatest stumbling-blocks in philosophy, to say nothing of the more obscure and eccentric laws of vitalism.

The *vis vitæ* and the *vis inertiæ*, or the animal and mechanical laws, perpetually intersect, retard, accelerate, modify or combine with each other. The former, extremely complex, and marked by intermitting actions, with intervals of repose, is always more or less amenable to the laws of inert matter. In the present instance, the flexors of the arm, inserted as they are in the unfavorable end of a long lever, near the fulcrum or elbow joint, must be considered as exerting a great force to raise the arm alone, to say nothing of weights placed in the palm. The raising of three pounds, placed in the extreme end of the lever or palm, according to the *data* of physiologists, is nearly equal to 200 lbs.! In some instances, I suppose the weights raised might have been more than doubled without counterbalancing the contractile force. Thus, by adding the weight of the arm or lever beyond the insertion of the biceps, the whole will amount to about 10 or 12 lbs., having an enormous leverage, like a pair of steelyards. Be the muscular force what it may, it contends face to face with the *vis inertiæ*, which it antagonizes for a certain period in the *cadaver*, independently of the galvanic circle of metals, muscles and nerves, and in opposition to the reflex logic. Why employ a complicated apparatus, when a stroke with the hand, a horn,* a cane, or hatchet, will answer better? "Every muscle," says Bichât, "which has been strongly contracted, requires a certain period of relaxation, before it can be excited again by contraction. Hence the necessary intermissions of locomotion and voice."

The contractile function in the *cadaver* presents several phenomena already alluded to, more curious and difficult to explain than simple contraction, as, relaxation and counter-action. "The contraction of the muscle," says Professor Dunglison, "is followed by its *relaxation;* the fibres returning to their former parallel condition. This appears to be a *passive state*, and to result from the suppression of the nervous influx by the will; in other words, to be produced by the simple cessation of contraction. Some have, however, regarded both states to be active, but without proof. Barthez maintains, that "the relaxation of the muscle is produced by a nervous action, the reverse of that which occasions its contraction; the will relaxing the muscles as well as contracting them." This latter view, omitting the supposed agencies of the nerves and the will, receives support from cadaveric phenomena. The contractile force elevates the fore-arm, with or without a weight in the palm, so as to rest against the breast. The *vis inertiæ* requires these masses to remain at rest. This sometimes actually happens, after one or more contractions. If the last blow has completely exhausted the motor power, the muscle does not relax in some few cases. The tumefied, dense zigzag mass remains contracted until the *rigor mortis* supervenes.† But, in other cases, this relaxation is repeated, as if by intermediate power, the forerunner of a powerful counter-action, or extension of the arm. These antagonistic and intermediary movements seem to indicate a three-fold power. In the living body frictions cause the speedy relaxation of those painful, knotty masses of muscle, called cramps; sometimes in the dead body, the period of the contraction of the muscle may be shortened, and that of relaxation hastened by the same means. Even after the *rigor mortis* has declared itself, the arms, by flexions, extensions, and frictions, may sometimes be restored to a contractile condition, as already shown.

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* I have, for reasons that will occur to the reader, used both conductors and non-conductors of electricity, in exciting contraction, and have caused the hand of the *cadaver* to be held down, that the mere mechanical impulse of the blow might first pass off,—a useless precaution, which I was driven to by some theorists, who, not admitting anything to be new under the sun, vainly puzzled themselves with fanciful explanations.

† This occurrence affords, as I imagine, the very best opportunity for the student of minute and microscopic anatomy, to ascertain the structural phenomena inciden-

Upon the whole, the percussional method, how simple soever it may seem, gives rise to very interesting phenomena, of a character but little complex, and though it may lack the dignity of galvanic machinery, the horrors of vivisections, and the mystery of the reflex theory, yet it should not be ridiculed, nor condemned, because it fails in dramatic effect.

The illustrious Franklin had published his hypothesis, namely, *that lightning and electricity were the same*, before he had positive evidence of its truth. But when he undertook the experimental proof, by means of a kite, made of a silk handkerchief, such was his dread of being laughed at by the Philadelphians for the simplicity of his proceeding, that he let no one but his son know it. He went to a retired place in a shed, and sent up his kite. A cloud passed, but without effect. He was in despair. Another cloud arose. He now drew down the lightning. Hypothesis became fact. Franklin had the sublime pleasure, perhaps never before equalled, of subjecting the dread thunderbolts of Heaven to his will. The kite experiment gave place to millions of lightning rods, which everywhere bristle against the skies to disarm the thunder-bearing cloud of its terrors, and to perpetuate the name of the experimenter. Gratitude, not ridicule, was his reward. This statement, though a digression, serves to show that the most simple experiment may lead to the most important results.

Bichât's doctrine of two lives—one, the perceiving, feeling, willing, moving, external, called the animal; the other, the nutritive, the negative, internal, called the organic; may serve to illustrate post-mortem contraction. Without admitting to the fullest extent, with Bichât and Broussais, that contractility is a " fundamental, vital property," we might justly regard it as a leading feature in the vital phenomena of at least one tissue,—the muscular. If we regard life, not as a unity, nor yet as a duality, but as a multiform aggregation of particular vitalities, the harmonious operation of which constitutes health, the derangement of which constitutes disease, and the general dissolution of which constitutes death, then it will not be unreasonable to suppose, that each tissue, having a kind of sub life, or special life of its own, may die before, or after some other tissues. Hence, the muscular and capillary tissues may, and often do, survive death in this detailed sense, among the numerous structures and functions of the general system. But the presence of

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tal to the contracted state of the muscular tissue, as the *rigor mortis* in this fixes, as if by congelation, or petrifaction, all the parts, exactly at the moment of their contraction. Certain it is, that an apparent increased cohesion, and augmentation of volume, may take place without any approximation of the ends of the muscle, as when the fore-arm is rigid; while the belly of the biceps is strongly contractile, though both its ends may be fixed as already explained.

this muscular life, isolated from all other vital phenomena, furnishes no positive proof of the presence of what is strictly and popularly called life.

After the death of the brain, the lungs, the heart, the senses, the will, &c., a degree of vitality in its simplest elementary form seems to linger in the muscular tissues, and which impulsion makes manifest by a route so direct and short, that the motor power and the contractile phenomena appear absolutely conjoined as cause and effect; and if its *modus* is not easily understood, neither does it assume a host of inexplicable agents—nor afferent, nor efferent roads, as in the reflex system. It does not offer an assumed, circuitous transmission as a good explanation.

Post-mortem contractility being, as we have seen, independent of the nervous system, suggests many important physiological and pathological truths to the impartial inquirer. Probably many of those diseases now attributed solely to lesions of innervation,* begin, continue, and end chiefly in the muscular system; for example, tetanus, spasms of the gullet, stomach, bowels, bladder, urethra, womb, and hour-glass-contraction, cramps, &c. Why resort to a lesion of innervation—a lesion not discoverable before or after death, by any of our senses, when the patient and his attendant have every proof of a muscular disease, in tetanus, for example? Haller mentions a girl affected with tetanus, bent backward (opisthotonos), whose abdomen sustained a weight of 800 lbs., without straightening the body! Simple rigidity, so universal and persistent, is quite sufficient to exhaust and to kill, as every one at all acquainted with the essentially remitting action of the muscular system in health must know. Let the morbid anatomist not direct his whole attention to the brain and nerves, in these cases; it may seem more learned to dwell on assumed functions of the spinal, ganglionic, and central nerves, and their reflex action, &c. The muscles should be examined—their color, cohesion, texture, &c. Does the tetanic rigidity relax to be replaced by cadaveric rigidity, &c.? Might not the subcutaneous operation of dividing one of the tendinous ends of a wounded muscle, as soon as the first symptom of tetanus declared itself, prevent the development of that horrible disease? When cramps, convulsions, and spasms, present themselves in the muscles with evident changes, even before death, why should we invoke the nerves, exclusively, in which changes cannot be demonstrated? The spinal marrow is, doubtlessly, necessary to health, and liable to disease,* but these are muscles by no means over-rich in nerves that are quite as necessary to life. The heart will bear vivisection still less than the brain and spinal cord. To expound pathology chiefly by supposing changes in the nervous tissue that cannot be recognized by our senses, neither before nor after death, or to rely on equivocal vivisections, as the cutting up of all the other tissues, or opening the brain to get at the great nerves of the centre, is truly a reflex, not a direct road to the knowledge of the theory and practice of medicine. And when Dr. M. Hall positively asserts that "the *whole tone* of the muscular system," and "*all* spasmodic diseases, belong to the reflex function of the spinal cord," we must dissent with all due deference to an authority so highly respectable. That the muscles may be primarily affected by many diseases is by no means improbable. In the commencement of fever, especially of yellow fever, the patient more uniformly complains of soreness and pricking pains in the muscular parts than of the head, or spinal marrow. To feel "tired all over" (to use the patient's usual phrase) is more characteristic than even chills. At all events, the pathology of the nervous system is not, as yet, sufficiently certain to justify us in ascribing such symptoms exclusively to the ganglionic, central, or spinal nerves.

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* *Innervation!* Happy word to conceal our ignorance! It merits all the benedictions which Sancho Panza pronounced upon the inventor of sleep, "it covers us over like a garment!"

"*Innervation*," says Professor Harrison of New Orleans, "includes five classes of phenomena—*change of nutritive action, muscular motion, sensation, the intellectual affections, and the emotions;* but as the change is essentially chemical, it is obvious that in each of the latter the first is included. Muscular action, sensation, thought, &c., are, therefore, mere results, &c."—(*Nerv. Sys.*, p. 64.)

The spinal cord seems to be the grand laboratory of Innervation. The spinal chemistry, the spinal physiology, and the spinal pathology, are sufficiently mysterious in themselves; but when enveloped in the dense fogs of the reflex action, ebbing and flowing, no one can tell which way the land lies—a stratum of fog rolls along the sky, shutting out the light—another still darker scuds along the land and the water, hiding both; it is a poor consolation to hear that one mass is afferent, and the other efferent.

Though a little out of place, I will take the liberty of making another quotation from my learned *confrère*, who has so ably advocated the cause of the Chemical School. "Every case of fever from a local injury is but a manifestation of reflex action from the spinal cord. All the tissues are affected by the reflex action of the spinal cord;—these are chemical changes, because the essential actions of life are themselves of a chemical character."—(Pp. 24, 55.)

Let us return a moment to tetanus,—the type of reflex pathology; the disease, above all others, wherein no morbid change is met with in the nervous system, its supposed seat, according to all the great authorities, as Larrey, Cooper, Hennen, and others. Curling, in his prize essay, says the same; yet he ascribes the disease to the motory tract (*tractus motorius*). Larrey refers this disease to the spinal cord, though his facts, and even his method of cure, have, if I may judge, a contrary import. Does not his method of amputation, in the incipient stage, cure by relaxing the muscular tension of the limb, rather than that of the anterior roots? Dr. Hennen, in his dissections, looked, where others have looked, into the viscera and nervous system, only to be disappointed; and yet he incidentally mentions having found "*the muscles a good deal injected with a serous effusion.*"

Mr. Curling, in his prize essay on tetanus, remarks: "*The muscles are not usually rigid after death.*" Dupuytren somewhere mentions that he found the muscles after death from tetanus reddened and engorged. In his "Clinical Surgery" (chapter xvi.), I find the following passage:—"*Necropsy of J. B. Roger* (who had died of tetanus), *thirty-six hours after death. Great rigidity of all the parts of the body which had not been affected with tetanus;* but the muscles of the neck, shoulders, and, in general, all those regions in which the tetanic rigidity had existed, *were completely relaxed.*"

Now, instead of going upon a circuitous route to the anterior roots for an explanation of either relaxation or rigidity, it would be easier to look to the muscles themselves. Is not the *rigor mortis* the last struggle of the expiring muscles? When their force has been nearly *exhausted*, perhaps completely *killed*, by the morbid or tetanic rigidity, is it not reasonable to suppose that the *rigor mortis* would be greatly modified in degree or duration, if not prevented altogether? Do not the tetanized muscles putrefy in advance of the non-tetanized? Every dissector sees, in the relaxation or flexibility which follows cadaverous stiffness, the first step towards putrefaction; and where the former does not appear at all, or is very transient, the latter supervenes with the greatest rapidity. (It is right that I state I have never made *post-mortem* examination in this malady with care.)

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* A voluminous French author, the late M. Pinel, never saw but three cases of softening of the spinal marrow, two of which were published by M. Magendie, in his Journal, in 1821.—(*Med. Times, Sept.*, 1845.)

In connection with this topic, I may be allowed to merely glance at a curious fact, the full development of which requires a distinct monograph, in the morbid anatomy of southern fevers, be the subjects thereof from the tropics, the temperate, or the frigid zones, showing that the intestinal canal, chiefly from the ileo-cœcal valve to the anus, is often contracted into a round, consolidated cord, without having any of those changes designated by atrophy, hypertrophy, hyperæmia, or inflammation. This contraction, for reasons which I cannot now offer, must exist anterior to death, and continues (during the general *post-mortem* rigidity and relaxation of the *cadaver*) up to the putrefactive period, obliterating the intestinal cavity. If any fæces be present, they are strongly compressed either into rods or balls, being nearly dry. Sometimes the large intestine resembles a cord with knots, at intervals, owing to scybalæ, and seems, moreover, considerably shortened. In other cases, and indeed very often, the natural notchings, puckerings, and pouches, are replaced by smooth surfaces, the whole intestine not exceeding the thumb in size. In rare instances, the contractions take place at intervals, leaving intervening links of the natural dimensions. These contractions strongly oppose attempts at dilatation. Is this lesion tetanus of the intestinal muscular tissue or coat?

In the *Gazette Médicale*, of February, 1845, Dr. L. A. Mercier relates that M. Amussat, having introduced a small bougie into the urethra, found it equally impossible to pass it into the bladder, or to withdraw it, until he had forced an injection into the canal. Dupuytren says: "The first touch of the bougie causes the canal to contract, so that it is disengaged with difficulty." Now, this contraction appears to me direct, not reflex, being excited in the urethra and in its contiguous muscles by disease, pressure, &c., not wholly unlike post-mortem contraction from a blow.

In cases of retention of urine, wherein the usual means fail, success may be expected, generally, by prolonged pressure with the catheter exciting violent muscular contraction, which, like healthy and post-mortem action, has a tendency to exhaust itself, or pass into relaxation, agreeably to one of its great laws, periodicity, and thus allowing the instrument to pass. Hernia, dislocations, and the like, might also be referred to in illustration.

A great many involuntary tonic and clonic contractions seem to be far more muscular than reflex and nervous in their origin and progress, being, in their irregular or morbid character, more or less subject to the great physiological law of intermittence, which is most clearly developed in the *cadaver*. It is a far-fetched explanation of parturition, to refer it to the reflex action of the spinal cord! The pains in expelling the child, the placenta, coagula, &c., usually lasting several days, are just such as might be expected in a great hollow muscle while contracting, though in these, as in all cases, there is doubtless a participation of the nervous and other tissues.

Simple contraction of the muscular tissue of the uterus is quite sufficient to account for the principal phenomena, without reflex action.

Cramps, in cholera, yellow fever, etc., are, no doubt, what they seem to be, affections of the muscles, not of the anterior roots of the spinal nerves. There is a possibility of being too profound for either physic or philosophy; cramps, morbid changes, inflammations, and the like, are disdainfully called nothing but effects—and truly they are of that character among the all-knowing immortals—as much so, without doubt, as gravitation, which is also an effect, though, to all mortal men, it must be regarded, for practical purposes, as a cause or ultimate principle, beyond which we cannot go. How will such logicians explain the following two cases, upon which I found this question ?—

Does muscular contraction, after death, ever show itself unconnected with any appreciable cause or excitant ?

A young lady, who had been my patient, died of cholera, in 1833, at Wheeling, Virginia, during my visit to that town. I obtained, with difficulty, permission to make a *post-mortem* examination, at about three hours after death, when I found a brisk twitching of the fingers, somewhat like *subsultus tendinum*, being chiefly in the flexor muscles, which latter had suffered before death from cramps and strong flexions. Here the disease of the muscle, so to speak, was still operating!

The next case, still more remarkable, was most carefully noted at the instant of its occurrence, as follows:—1843, October 8th, 11 A.M. Peter Duffy, Irishman, aged 28, last from St. Louis, resident in New Orleans one month; sick four days; hand, 23°; bend of the arm, 26°; axilla, 28° of Réaumur; body curved to the right; fists clenched; forearms flexed, pressing against the chest; insensible; a column of black vomit, about twenty ounces, was projected from the mouth, like a *jet d'eau*, two or three feet perpendicularly: it fell back into the mouth, and on the right side of the face; the mouth being closed, two smaller streams were forcibly discharged through the nostrils upon the breast; the jaws became fixed; the lips compressed; respiration ceased. He was dead. Every part of his body was quiescent and motionless; but, soon after, he performed the following motions, occupying, by estimation, from three to five minutes:—First he carried his left hand, by a regular motion, to his throat, then to the crown of his head; the right arm followed the same route on the right side; the left hand was then carried back to the throat; thence to the breast, reversing all its original motions; the right hand and arm performed exactly the same motions: in all, eight consecutive, identical, equable motions, in apparently equal times, and with a regularity indicative of volition, though before death he was totally insensible.

Post-mortem contractility, in its legal applications, is not without interest, showing, as it does, the absurdity of some grave *judicial decisions*, based solely on muscular motion, which latter has been held to be a sufficient proof of life in a new-born child, enabling the husband to inherit the estate of his wife during his lifetime. In a case given by Dr. Dunglison (*Phys.*, v. i.), the Court of Exchequer (in England) and the jury decided that the child was born alive, because, when it was immersed in a warm bath, a *twitching* and *tremulous motion* of the lips appeared twice. What would the Cokes and Blackstones of the law say, agreeably to this principle, on seeing a dissected, eviscerated man performing regular flexions, extensions, pronations, supinations,—lifting heavy weights from the floor and placing them on his chest? To designate the precise moment when living becomes dead matter is indeed a desideratum: "to be, or not to be, that is the question" which science, humanity, and the strongest of the human passions have not been able to solve.

Although three centuries have rolled away, no anatomist, no medical man, can think of the melancholy fate of the illustrious "Vesalius" without emotion:

"Vesalius," says Mr. Hallam, in his History of the Literature of Europe, "left every anatomist far behind. He was to anatomy what Copernicus was to astronomy. A superstitious prejudice against human dissections had restrained ancient anatomists in general to pigs and apes. Vesalius and his students prowled by night in charnel-houses, they dug up the dead, they climbed the gibbet, in fear and in silence, to steal the mouldering carcase of the murderer, the risks of ignominious punishment, and the secret stings of superstitious remorse, exalting, no doubt, the delight of those useful but not very enviable pursuits. Being absurdly accused of having dissected a Spanish gentleman *before he was dead*, Vesalius only escaped capital punishment, at the instance of the Inquisition, by undertaking a pilgrimage to Jerusalem, during which he was shipwrecked, and died of famine in one of the Greek Islands" (in the year 1563). The only proof against Vesalius was, that the young nobleman's heart *moved* (some say palpitated) when it was exposed to view by dissection. This motion was doubtless nothing more than some contractions of the muscular fibres excited by the knife (as already explained), and which may be produced in every heart recently dead, without, perhaps, a single exception. Having digressed so far, I will add that, some years since, several medical students declared to me that, while dragging an extremely large, yellow fever subject from one room to another, preparatory to dissection, the *cadaver* groaned distinctly. I arrived soon after—I found the contractile function very strong. Venesection discharged blood with force upward, against the principles of gravity, and in great quantity—(a curious subject, upon which I have the materials for a monograph). The circumstances alluded to appeared wholly inexplicable, until, at length, I heard a subject groan with my own ears,—since which I have caused many groans by placing the foot against the chest, and making strong pressure, which causes the air to be expelled through the larynx and organs of speech with noises sometimes not unlike difficult breathing and inarticulate moaning. The elasticity of the ribs causes them to return to their former state, as soon as the pressure is withdrawn; the air at the same time rushes through the opening of the glottis to fill up the vacuum in the chest.

In most biographies of Vesalius, it is said that, after he had dissected down to the heart, this organ was found palpitating with life! This nobleman, be it observed, had been the patient of Vesalius, had died under his eyes, and *showed no signs of life during the early part of the dissection*, and before the exposure of the heart—the friends of the deceased had requested the post-mortem examination, and did not, it may be inferred, proceed prematurely. The operator had long before published the greatest work on Anatomy that the world had ever seen (*De Corporis Humani Fabricâ*), and must have known what were the signs of death. From all these circumstances it may be inferred that the accusation upon which the Inquisition condemned him to the most cruel tortures and death, and from which Charles V. saved him, was absurd in the highest degree, and originated in that post-mortem contraction above described.*

The tales now circulated, chiefly by some European writers, going to show that not a few persons have been buried alive, or have shown signs of life after the phenomena supposed to belong to real death had taken place, may have no better foundation in most cases, than that upon which Vesalius was exiled. It is, moreover, to be observed that the most celebrated writers upon this subject, and upon premature interment, seem to get their facts from reports and rumors not properly authenticated. Even M. Julia de Fontenelle, who has written elaborately upon this subject, seems not to have seen any of the cases which he has collected from all points of the compass, chiefly from the newspapers. Such facts afford at best

> "A most lame and impotent conclusion,"

which must be productive of evil only, by arraying the strongest prejudice against the progress of science and the increase of human happiness.

I beg leave to add the following observations, suggested by an examination of the last American edition of Bell's Anatomy and Physiology, made since the above essay was written. In the articles entitled, "*The Muscular Power—The Discoveries of the Author*," etc., will be found the statements following: "The key to the system—is, each filament or track of nervous matter" [whether from the anterior or posterior portions of the spinal cord] "has throughout its whole length, its peculiar endowment; if its office be sensation, when injured, sensation, not motion, will result;"—that portion of the "ulnar nerve formed of the anterior root of the spinal nerve, in all its extent constitutes one organ, and ministers to one function, the activity of the muscle of the hand and finger."—"The nerves have all the power of exciting motion."—But, when he comes to speak of a muscle's quivering and moving after its separation from the body, he is sorely puzzled. He does not, like Dr. Hall, pretend that the mere introduction of a probe into the spinal mar row will cause the muscles to become "instantly flaccid, non-resilient, shapeless" (an expression too strong for imagination itself), "and non-contractile." Sir Charles attempts to account for the contraction: but in so doing, he completely nullifies, nay, destroys, his own theory of anterior roots, as well as its reflex addition, both root and branch. "There can be," says he, "no separation of the muscular and nervous systems—the nerves meet everywhere with the muscular fibre." Here, then, is a fine piece of logic! The anterior tract of the spinal cord gives out the anterior roots, which are the sole agents of motion! But when the arm is separated from the body, then the motion is performed, not at the origin, but at the extremities of the nerves, which belong to the biceps, for example! This is as good as an unconditional surrender. I offer but one argument more, and I appeal to a candid world if it be not conclusive against the doctrines of Bell and Hall. In striking the biceps muscle, in the manner I have described, nearly all the great nervous cords distributed to the arm, fore-arm, wrist, hand, and fingers, are equally the recipients of the percussing force, as the external cutaneous, the median, etc. Now, the same force that is applied to the nervous twigs of the biceps, ought to communicate motion to all the parts upon which the great nerves ramify; that is, to the fore-arms and fingers. This never happens in the slightest degree; the motion is limited to the muscle struck, and not transmitted to the muscles to which the nerves are distributed.

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* It appears from the Boston Medical Journal, for January, 1846, that a Dr. Waterman, of Buffalo, N. Y., has been sentenced to hard labor for three years, in the State Prison, for *disinterring* a dead body for dissection! Has the age of Vesalius returned? Is it a crime to increase human happiness by increasing human knowledge, its indispensable element? Shall the worms on land, and the sharks at sea, be entrusted with the whole knowledge of Anatomy? Is that true philanthropy which seeks to save the ravisher and murderer from capital punishment, that he may be placed in prison side by side with an honest man, whose only crime consists in operating on the dead, that he may know how to operate on the living with safety? The Quack is privileged to kill with impunity! Will he be in haste to change his ways—to become a good citizen—that is, to get a knowledge of his profession, when the punishment of a felon is to be the reward of his pains?

In a word, the London experiments were made upon the roots—the New Orleans experiments upon the terminations of the nerves; the former were few, it would seem, and were upon inferior animals—the latter were numerous and upon man. In London the contractions were feeble, "though perceptible to the naked eye"—in New Orleans they were powerful, carrying heavy weights during flexions and extensions against gravity and against a leverage of great force; upon the whole exceeding the former as much as the Mississippi River exceeds the Thames.

In making these statements I indulge a hope (an illusion, it may be) that critics, whether from contempt, or charity, or justice to the writer of this monograph, will perform the experiments herein mentioned, before animadverting too strongly upon its doctrines. The experiments are easily performed. Is it right to throw the great reputation of my opponents in the scale against my facts? In such a case, laboring as I do *con amore*, whilst every capital in Europe swarms with salaried professors, who are teaching neurological doctrines quite opposite, the *argumentum ad hominem* is unworthy of Mrs. Caudle herself. It is precisely the great reputation of our masters which, as history teaches, is likely to impede the march of science in many instances.

APPENDIX.

I have, this day (Feb. 9th, 1846), for the first time seen Dr. Marshall Hall's Memoirs on the Nervous System (4to., plates, pp. 113, London)—being somewhat later than his lectures upon the same subject as quoted above, and differing in nothing but a slight re-marshalling of sections and sub-sections. No one can regret more than I to speak of a writer so justly distinguished (independent of any reflex theory) as Dr. Hall, in any other terms than commendation, but as his experiments seem to have a bearing more or less in conflict with mine, I must run the risk of being charged with temerity, if not arrogance, in the cause of what I suppose to be the truth ; this may not be good policy, but it is at least honest and warranted by the occasion. I rely fully on the authenticity of his facts (many of which have probably no application to the physiology of man). I only differ from him in their interpretation and value. At page 112 of the above named work, he gives what he emphatically calls a recapitulation of "The *whole of his discoveries ;*" "*discoveries,*" as he declares, "*entirely due to him.*" Such statements, involving priority of discovery, may often seem sterile to the reader, but they are not necessarily either unreasonably selfish or egotistic, but come under the golden rule which "renders to Cæsar that which is Cæsar's." "First discovery ; the *distinction* of the excito-motory property from sensation, volition, instinct, and all the functions of the cerebrum or mind." Now, is not this an assumption, implying (possibly truly) that when the head is chopped off, sensation, volition, and the entire mind, are completely chopped off likewise? Ignorant as we are in such matters, until some decapitated gentleman shall arise from the grave to explain further concerning the feelings and the motions of his headless trunk, what can be gained by subdividing all the muscular actions in this same trunk, after "the amputation of the encephalic extremity," which, a learned author informs us very gravely, "cannot be done in the living subject without stopping respiration and producing other inconveniences, which under the operation are happily inadmissible." "Second discovery ; the *distinction* of this property from the *vis insita*, or irritability of the muscular fibre." Is not this a distinction without a difference—one that runs through all of Dr. Hall's books on the reflex theory? He labors hard—and it were easy to show unsuccessfully—to prove that his doctrine has nothing to do with the old discovery of irritability; yet he has everywhere admitted that they may and do exist simultaneously. That vague mass of phenomena designated by the *vis insita* has been baptized under another name ; a theoretical name which implied no theory, where no theory is available. Repudiating the *vis insita*, he claims for the reflex function ; "the principle of equilibrium and tone in the whole muscular system, and the principle which presides over the orifices and sphincters of the internal canals"—(p. 38) ;—all of which, according to him, cease as soon as the spinal cord is disintegrated, leaving the muscles "*lax, flaccid, without resiliency, shapeless*" (*passim*)—none of which, I will add, ever happens with human cadavera, in lat. 29° 67′ N., long. 90° 7′ W. ; though I cannot speak for the meridian of Greenwich, long. 0°, lat. 51° 29′ N. "Third, the *distinction* of this property as a function of the spinal marrow. Fourth, the *identification* of the excito-motory property with the motor power exercised by the spinal marrow. Fifth, the excito-motory property acts in an *incident*, *retrograde*, and *reflex course*, when stimulated mechanically or by galvanism, or by the natural stimuli in the living animal." "These," he adds, "are *all* the points certainly and entirely due to him."

"The spinal cord is the sole organic seat of this reflex function, and in an especial manner of the emotions, passions, and appetites" (pp. 96, 71). Let psychologists who have the care and cure of souls, and phrenologists, who perform the same offices for our cranial bumps, consider this matter well. Mr. G. Combe has mapped off thirty-five phrenological organs; two reflective, twelve perceptive, leaving no less than twenty-one for the passions, propensities and sentiments—all absorbed by the spinal marrow, according to Dr. Hall,—a goodly number, seeing their unruly character and unfortunate location, to use an Americanism. Dr. Hall might as well claim all Oregon as all the emotions and passions for the spine. Phrenology sustained itself with difficulty in upper realms of intellection, but, with more ease as soon as it dipped its wing in the lower, the animal, the philoprogenitive, the amative, the cerebellar territories. The reflex science, as if by enchantment, transfers the whole of the passions and the mysteries of generation to the spinal region, throwing, at least, a suspicion upon the stability of human knowledge; though Dr. Hall maintains that his "*System is scarcely liable to error; its originality is obvious.*"—(P. 53.) "Day follows night, and night the dying day,"—not a pleiad has ever wandered from the constellation of Taurus, while medical systems disappear like the banks of the Mississippi, which often shoot noiselessly away, with house and builder many a fathom below the turbid waves. *Sic transit gloria mundi.*

Dr. Hall has given a number of plates or maps, exhibiting, not the phrenological regions, nor yet the fantastic travels of a delirious dreamer, but the devious windings, and marchings, and counter-marchings of this romantic reflex potentate, the veritable Don Quixote of physiology. Contraction by percussion in the manner I have described, would be wholly excluded from irritability, as defined by Dr. H., who says, "The movements of irritability are the result of the *immediate application* of a stimulus to the nervo-muscular fibre *itself.*"—(P. 31.) I affirm, that a blow on the skin with an intervening layer of fat an inch or more thick, is as effectual, perhaps more so, in exciting contractions than one *immediately laid on the naked fibres themselves.*

There may be some convenience, if not philosophy, in dividing muscular contractility into voluntary, involuntary, and mixed—but to divide it into psychical, galvanic, cerebral, reflex, vital, irritable, and the like, with a view to establish species of a scientific character, to tally separate and different from each other, is perfectly idle. Since the metaphysics of Neurology can furnish nothing better, let us appeal to common sense for an illustration. The personator of the melancholy Hamlet, for example, in speaking of

> The heart-ache, and the thousand natural shocks
> That flesh is heir to,—

would probably put his hand on his breast. The next day the tragedian falls sick of a cardiac disease, and puts his hand to the same place to point out a physical ache. The day following, being comatose and insensible, he probably places his hand in the same way. He dies. I strike the biceps, and as in the tragedy, as in the sickness, he carries his hand to his breast. Here many circumstances have changed—muscular action is modified; yet who will prove that this action itself is not essentially the same in nature, though excited differently? Haller would say—Vis insita!—C. Bell, Anterior roots!—Hall, Reflex action!—The electricians, electricity! galvanism!—The vitalists, vitality!—The chemists, chemistry! Omitting the third flexion in this series, the two first are such as would be denominated *psychical*, because excited by the mind, and the last would be called by some other name, according to the operator's theory; but in neither case do we know whether the essential nature of both be the same or different; and we deceive ourselves in supposing that the name explains the thing. If the post-mortem contraction were called *stickical*, because excited by a stick, it would be as good an explanation of the phenomena, as to call the ante-mortem contraction *psychical*. A celebrated physician, so the story runs, in finishing a course of lectures on muscular motion, said, "Gentlemen, I have told you all that is known upon this subject, and now, if you understand one jot of the cause of muscular motion, you know more than I do."

It is not intended on this occasion to say anything upon the *materializing* tendency of neurological speculations of the day, though it would not be difficult to show that there is some credulity, not to say fanaticism, in proclaiming that the feeling, thinking, willing, hoping, fearing, deserving, conscious entity, called the *mind*, is identical with its gross organs, whether muscular or nervous, spinal or cerebral. And as to its *locale*, it may not be altogether philosophical to advocate the exclusive claim of the back, or the stomach, or the heart, or the head. The sooner another Thomas Reid shall appear with his massive logic to destroy the snags and obstructions which are choking up the stream of mental philosophy, the better it will be, likewise, for physiology in general, and more especially for that part of it—*now the larger half*—which is claimed for the spinal cord—"*the sole seat of all the emotions, passions, and appetites!*" according to the Reflex School.

ART. II.—*Hemorrhage from the Liver.* By EDWARD G. LUDLOW, M.D., of New York.

A GENTLEMAN aged 58, of delicate frame, was taken ill on the 21st December last. He complained of great exhaustion, with pain in the right shoulder; his pulse was 65, and feeble; his tongue slightly coated, but moist; he was ordered pill hydg. at night, to be followed in the morning by eccoprotic mixture, with small doses of vin. tinct. colchici. Under this treatment his general symptoms improved. On the morning of the 3d January I saw him at 11 o'clock; he was reading the morning paper, and expressed himself better. At one o'clock I was sent for in great haste, and found him, on my arrival, cold and pulseless, complaining of agonizing pain in the abdomen, which was much alleviated by means of hot brandy and water, with tinct. opii and fomentations. He was relieved in about 15 minutes, when a slight spasm of the facial muscles was observed, and he expired.

With the aid of Dr. Sabine I made a post-mortem examination, of which the following notes were taken:—

External Appearances.—Body generally pale, with slight yellowish tinge; muscles rigid.

Chest.—Lungs slightly emphysematous and studded with spurious melanotic spots.

Heart.—Normal in size and thickness; semilunar valves of left side studded with slightly ossific deposit.

Abdomen.—On opening this cavity the intestines were found floating in fluid blood and serum, which was removed with numerous coagula—amounting to several pints, "half a chamber-full." On careful examination a laceration was found in the posterior part of the inferior concave surface of the right lobe of the liver, which was filled with a coagulum. The liver was carefully removed from the body, and on pressing the finger carefully into the rupture, it was carried into an extensive lacerated cavity extending upwards and backwards. On laying open the cavity an opening was discovered in the right hepatic vena cava, from which the fatal hemorrhage had taken place.

The rest of the viscera healthy, except the kidneys—both were encysted, particularly the left; the superior cyst of which would probably contain 10 ounces.

Abercrombie, in his Pathological Researches on the Diseases of the Stomach and Liver, relates the case of a gentleman mentioned by Andral, previously in perfect health, who, on getting up one morning, complained of some uneasiness in the abdomen, and returned to bed, where he was left alone for some time. When his attendants returned to the room he was dead. On inspection much extravasated blood was found in the cavity of the abdomen, which appeared to have proceeded from a lacerated opening in the substance of the liver. This led to a small cavity full of coagulated blood, and the hemorrhage was distinctly traced to the rupture of a branch of the vena porta.

[A case very similar to the above came under our notice a few years since, in the person of a married lady, aged 36, the mother of several children. She rose in the morning in perfect health; and, while standing before her looking-glass making her toilet, she felt a sudden pain in the region of the liver; not, however, so severe as to cause any serious inconvenience at the moment. She became faint in the course of an hour, and vomited; was unable to sit up, and sent for a physician, who called me in consultation. I found her almost pulseless, with cold extremities and surface; sunken, anxious expression of features, and a distressing sensation of sinking at the epigastrium. She grew gradually weaker and weaker, and expired in about ten hours from the time of the attack. *Post-mortem examination* revealed a laceration in the liver. The cavity of the abdomen contained more than a gallon of extravasated blood. All the other organs were healthy. Although no opening was found in the *vena cava*, there can be no doubt, we think, that the hemorrhage proceeded from that vessel.—*Ed. N. Y. Jour. of Med.*]

Art. III.—*A Case of Extra-Uterine Fœtation, in which a full-grown fœtus was successfully extracted about ten years after conception, by the Operation of Gastrotomy.* By Alex. H. Stevens, M.D.

Mrs. Randall, a woman of slender frame, soon after marriage began to suffer from some functional disturbance of the uterus. In the early part of 1836, four years after her marriage, being then in the 23d year of her age, she became, as she supposed, pregnant for the first time.

After an interval of two months, while engaged in active exercise, she was suddenly seized with severe pain in the left hypogastrium. This attack, which at once assumed the character of peritoneal inflammation, lasted six weeks, and was treated by venesection, leeching, blistering, and other active antiphlogistic measures. Morning sickness, enlargement of the abdomen, and quickening, occurred at the usual time, and the breasts secreted milk. But during the whole term of her supposed pregnancy, she had slight sanguineous discharges from the uterus, at short and irregular intervals.

At the end of what she considered her full time, there were some equivocal symptoms of approaching labor; the sanguineous discharges were then upon her; she had no regular bearing-down pains; no pains in the back. What she considered signs of labor, were some peculiar spasmodic contractions in the muscular parietes of the abdomen ("twitchings of the belly," as she described them), which were overcome in a few hours by venesection and an anodyne draught. Up to this time the movements of the fœtus had been troublesome. They now became less frequent. About a month after what she calls her time of labor, while walking about the house, the struggles of the fœtus became suddenly so violent, that she "was obliged to force it downwards with both her hands, to prevent it from rising upward and suffocating her." After continuing for a few moments, the struggling ceased; and no movement was ever afterwards felt. The tumor now appeared to have changed its position, and to lie transversely across the lower part of the abdomen.

For the next six months she enjoyed a moderate share of health, though her size continued as great as at the end of her regular term. In July, 1837, she began to suffer much from habitual constipation, and occasional attacks of nausea and vomiting. For a period of fourteen days, she had no alvine evacuations whatever; and during this time the turns of nausea and vomiting were frequent. "All that should have passed by the bowels came upwards." But the ejections by the mouth consisted mostly of greenish watery fluid of a most offensive odor, and in very large quantities. As her bowels again began to resume their healthy action, the nausea became less frequent and obstinate. Her abdomen, she now discovered, had diminished somewhat in size. This change she attributed to the vast quantities of the offensive fluid ejected from her stomach. By degrees her general health returned. Her menses reappeared about the first of January, 1838. Her abdomen continued to diminish in size at the upper part; but still she had occasional returns of constipation, attended with nausea and vomiting. At times her abdomen would swell up rapidly, and as rapidly diminish to its usual size, after she had discharged from the bowels, for a day or two at a time, an offensive fluid similar to that which she had previously ejected by the mouth.

In October, 1839, her symptoms again became urgent. For eight days she had no alvine evacuation. Her abdomen became distended, and she had frequent and protracted turns of nausea and vomiting. She was then under the care of Dr. Leggett, and had been seen a few times by Dr. Miner. On the 7th of October, in connection with these gentlemen, she was seen by myself and Dr. John Watson. The following is a summary of her symptoms as recorded by him at that time:—

"The abdomen was as large as that of a woman at full term. There was a tumor as large as a full grown fœtus, lying across the lower part of the bowels, and reaching from the pubes nearly as high as the umbilicus, slightly, if at all, moveable. On examination per vaginam, the tumor was found occupying the upper strait of the pelvis, pressing firmly against the rectum and lower portion of the colon, and upon the bladder and uterus. The rest of the abdominal swelling was made up of gas and watery fluid, which latter was detected by percussion in either flank. The patient was extremely emaciated, and apprehensive that she had but a few days to live. At our second visit, Oct. 8th, a gum elastic catheter, of the largest size, for the urethra, was introduced into the rectum, with the view of throwing an injection through it. This was passed with much difficulty, and when introduced, the pressure of the tumor against the intestine was so great as to arrest the instrument, and to prevent the passage even of fluids through it. In the afternoon it was removed, and a firm œsophagous bougie was substituted for it, and introduced as far as the sigmoid flexure of the colon. This gave issue to a quantity of gas, and subsequently to about six quarts of fæcal matter, mostly fluid, of a most offensive odor. On the following day, Oct. 9th, the nausea and vomiting had ceased, the patient's countenance was cheerful, she was free from uneasiness, and her abdomen was much reduced in size. By careful inspection, it was now found that the tumor could be moved to some extent in a lateral direction, but could not be elevated. The mass lying above the pubes was continuous with the portion to be felt per vaginam. The neck of the uterus held its natural relations with the bladder and rectum, but the uterus appeared to be reclining towards the right side. After the bowels were relieved, as above stated, the patient quickly rallied, and in a few days afterwards was able to resume her household duties."

Subsequent to this last attack, for a period of more than six years, she continued to enjoy a fair measure of health, without a single return of her former attacks of nausea and vomiting. But on the 3d February, 1846, I was again called to see her by Dr. Miner, her condition having become alarming. She was suffering from distressing sensations in her bowels, as if "the child's bones were sticking into her," especially during defecation. She had long been obliged to take laxative medicine constantly, and was discharging two ounces or more of reddish purulent matter, intolerably offensive, with every fæcal evacuation. The urine is also offensive. She was sinking rapidly, and suffering from a dry, hacking cough. Her pulse ranged at about 120, and she had distinct hectic paroxysms. These symptoms had set in about the 25th December, when the first discharge of matter was noticed.

On an examination of the abdomen, the skin is found marked as in women who have borne children. The tumor, smaller than formerly to the left of the median line and chiefly below the umbilicus, an irregular sphere in form, flattened in its antero-posterior character, fixed to the parietes of the abdomen, and resting rather firmly on the left sacro-iliac symphisis. The surface of the tumor presented a salient point on the right side, and a dark, large prominence towards the left iliac fossa sacro-iliac.

Here was a case well calculated to make a practitioner feel the weight of his responsibilities in forming a correct decision.

Was it right to have left the woman unrelieved in the year 1839? I so thought, for the diagnosis was not then so clear as now, and after the relief of her complaint her health became tolerably good. Yet an operation would be more dangerous now that the intestine (probably the termination of the colon) has become ulcerated, than at the former period. On the other hand, on a calculation of chances, the worth of her life without an operation is comparatively small. What are the chances with it? Though feeble, she has good moral courage, founded on trust in God, and unbounded confidence in her advisers. The fœtus is doubtless in a sac—may it not be safely removed? Dr. McKnight operated successfully in a case of this kind,* but this woman would not probably survive what his patient is described as having undergone. Moreover, the practicability of removing the fœtus safely is not quite certain. Some of the ablest surgeons of this city, about thirty years since, undertook an operation of this kind, and failing in it, the woman soon died. It is said they likewise supposed they had mistaken the case; but even this implies obscurity and difficulty in accomplishing the operation.

Again, here is a more complex case. The sac communicates with the intestine. Will the fæces enter the sac and cause fatal inflammation, or will the secretions of the sac after the operation pass off by the bowels? We believe—at any rate, we hope, the latter result. Let us try. The morrow is fixed for the operation. She stipulates that no one shall be present but Drs. Miner, father and son, Dr. John Watson, and Mr. Austin L. Sands, the doctor's student.

February 7th.—She is placed on a cot with the knees and shoulders elevated, and I am seated on her right. An incision about two inches long is made in the linea alba, over the site of tumor. After dividing the parietes of the abdomen the first object that presents itself is a collection of irregular roundish masses of a brownish red color, which prove to be omentum adhering to parts of the intestines and mesentery in various points; below these is the tumor felt to be extensively adherent to the surrounding parts in various portions of its exterior surface. Near the anterior central portion the tumor is a projecting prominence, which, being cut open at the suggestion of Dr. Miner, whose good judgment has often aided me, gives the feel of bone. It is cut off, and proves to be part of the foot of a fœtus. Now the case is clear and the sac opened. The tibia is next pulled out, and there issues from the opening four ounces or more of reddish thick fluid, with whiteish granular masses floating in it, and very fœtid. This is carefully soaked up. The incision is now enlarged to about three inches or rather more, and a fœtus of full size is slowly drawn out by the legs through the opening which lightly closes around it. After the removal of the fœtus, the principal bones of the head, excepting the upper and lower jaw which remained attached, are extracted from the bottom of the sac and the loose teeth. There remained sundry smaller bones partially buried in the sides of the sac, giving to it in some places the feel of coarse sand-paper. The operation had now lasted about twenty minutes. No vessel requiring a ligature had we cut. The woman had borne it without a struggle or a groan, but her countenance and pulse showed a pretty severe shock to the nervous system. The skin had become moist, rather cold, and the pulse had increased in frequency some eight or ten beats. Mr. Sands, the only pupil in attendance, thought he had seen strabismus. The wound was brought together by three stitches of the interrupted suture, excluding the peritonæum. These were supported by adhesive straps, and over them two lateral compresses, and three or four turns of a roller. Some cordial drink and a spoonful or two of oyster soup were given, and she remained in situ until afternoon, when she was carefully removed to her bed, the operation having been performed while she lay on a cot.

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* Being on a professional visit to Schoharie county about ten years since, I chanced to see the subject of this case. There was an opening in the muscular parietes of the abdomen, large enough to receive the hand. The opening had been made about midway between the umbilicus and the anterior superior spinous process of the ilium.

February 8th.—Pulse 126, and weak; abdomen beginning to be distended; has made water and vomited oyster soup. Egg with sugar and brandy is prescribed. In the afternoon more distension of the abdomen, an injection of catnip-tea is given to the bulk of one quart. It comes away without much discharge of wind or any purulent matter.

February 9th.—More distension of the abdomen, with a little soreness; pulse 132. No discharge through the wound. Fomentations with camphorated spirits; mustard poultice to the epigastrium; ice water or whatever she may fancy, to be taken ad libitum. P.M., pulse 124; more distension. Half an ounce olii recin, with some aromatic mustard and camphorated spirits as before.

February 10th.—A.M., the oil was retained; flatus and fæces discharged repeatedly and largely, with uniform relief after each discharge; looks better; has asked for and sucked a beef steak, and a little weak coffee; abdomen was swelled, indeed very little so; no increase of soreness; pulse fuller and reduced to 104.

February 11th.—Better in all respects; pulse 98.

February 12th.—The dressings were removed for the first time. About two-thirds of the wound had closed by the adhesive process. From the open portion of it there was a discharge of a pint or more of putrescent matter similar to that which was removed during the operation. For some time after this the dressings were renewed daily. The discharge gradually diminished in quantity, and improved in character. There never was any tending to protrusion of the bowels, or any considerable tympanitis.

February 16th.—The patient is sitting up. Subsequent to this date she attended to the dressing of the wound herself. This remained open about a month. After the external discharge had ceased, she had for a few days a return of the purulent discharges from the bowels, which had been arrested by the operation.

March 14th.—The patient has of late sat up most of the time, and occupied herself in sewing. To-day she left the room for the first time. The wound has given way anew once or twice at a small point, and allowed some purulent matter of a healthy character to be discharged. It now appears to be permanently closed again, and there is no longer any purulent discharge from the bowels. The cough that at one time threatened to become troublesome has left her. She has not menstruated since the operation; but in other respects, to use her own expression, she is as well as ever she was in her life.

April 21st.—The patient is busied at her household duties. She is rapidly gaining flesh. The wound remains firmly closed—but she states that there is occasionally a slight discharge of thick, yellow, inodorous purulent matter from the bowels, attended with no uneasiness.

April 25th.—The discharge has apparently ceased.

It will not escape the attention of the physiologist, that the various symptoms of pregnancy supposed to depend upon the nervous connection of the uterus with the stomach occurred in this case, although the uterus was not directly implicated. Are we to look for the cause of these symptoms inthe altered condition of the blood dependent upon the supplies afforded to the growing fœtus?

The period when suppurative discharge *per anum* first took place (*i.e.*, about six weeks before the operation), was undoubtedly that at which the intestine and tumor first communicated with one another; and then, too, putrefaction first commenced. The undecomposed condition of the contents of the chest and of the upper portion of the abdomen was owing, probably, to the exclusion of air from them—consequent to the doubling up of the fœtus.

Cases of extra-uterine fœtation are not very uncommon; but they terminate in death generally before the full period, by sudden hemorrhage arising from the rupture of the sac, or of the vessels uniting the fœtus to the mother; but this danger probably ceases soon after the death of the fœtus.

If the diagnosis could be made out with tolerable certainty, this risk as well as the more remote one of ulceration of the hollow viscera. would authorize an early operation.

In regard to the dangers of the operation itself, they do not appear to me greater than those of lithotomy. Those arising from simple exposure of the peritoneal cavity are probably less. The difficulty rather lies in finding a place for opening into the sac without compromitting other organs. I am inclined to think that an incision made directly upon the most projecting portion of the tumor, be it where it may, will be most likely to bring into view a part not covered with intestine. As adhesion may be expected to have taken place in other parts, a protrusion of the viscera, either during or after the operation, need not be apprehended. In the case I have related, I closed the wound exactly. Had there not been an outlet for the matter into the intestine, it would have been proper to have left it slightly open.

Another practical question arises as to the treatment of those cases in which the tumor is not producing great inconvenience. Should they be left alone, or, in view of ulceration of a hollow viscus taking place, ought an operation to be advised? The best answer I can give to the question is, that when the tumor becomes fixed, or is pressing against the upper strait of the pelvis or other part, so as to interrupt defecation, that pressure, it may be presumed, will lead to ulceration at some future period—and this would form one pretty strong argument in favor of an operation before such ulceration had occurred. On the other hand, it is right to state that women do sometimes carry extra-uterine fœtuses during very long periods of time without great inconvenience. There is a case of this kind now in this city.

ART. IV.—*A Case of Amaurosis, caused by Lightning during Sleep.*

By GEORGE M. MACLEAN, M.D., of New York.

ON the night of the 21st of July, 1845, a girl aged about 14 years, who was sleeping with her face towards an open window, was, during a thunder-shower, aroused sufficiently to perceive two flashes of lightning in immediate succession. She at once fell asleep again. On being called in the morning she was not able to open her eyes.

22d, 7 P.M.—The lids were closed, and of a bluish color. Upon separating them the eye moved involuntarily; the sclerotic was congested, and though there was no power of vision, yet a painful sensation was produced by the light. She also complained of pain in the back of the neck. There was very little febrile excitement. She did not think that her eyes were open at the time of the injury.

She was bled, in an upright posture, to approaching faintness. She took 10 grains of calomel, and was directed to take half an ounce of sulphate of magnesia in an hour, and to apply warm water to the eyes.

1 P.M.—No change in symptoms. The medicines had not operated; a blister to be applied to the back of the neck. The salts to be repeated.

10 P.M.—The medicines and blister had acted well. She had been able to see persons, and was quite comfortable. I directed her to apply water warm or cold, as was most agreeable to her, and to abstain from attempts to see.

23d.—Vision was clear; but she was somewhat intolerant of light. To use nauseating doses of tart. emet., and apply a weak watery infusion of opium.

24th.—The admission of light still producing pain, the blister was reapplied and dressed with savine ointment: the salts were repeated, and the tart. emet. and the infusion of opium continued.

Under this treatment she improved so rapidly as to go to service on the 29th: and had continued well till the middle of November, when I last heard from her.

ART. V.—*Extracts from the Recorded Proceedings of the New York Medical and Surgical Society.*

Case of Amaurotic Affection of the Eyes, enlargement and softening of the Heart, with disease of the Mitral Valves, and Granular Kidney, following Scarlatina.

DR. W. P. BUEL communicated the following case:—

On the 22d of October last, I was consulted on account of an amaurotic affection, by Mr. B., aged 28 years, of a tall and slender figure, by occupation a clerk, temperate and regular in his habits, and enjoying good health, until the last few months, though both his parents died with consumption. The pupils of the eyes were sluggish, and he had pain in the orbital region, with obscure vision. There was considerable anasarca of the face, which the patient ascribed to his having taken cold while under the influence of mercury which had been given him by another practitioner for the amaurosis. His pulse was about 100, and feeble; his tongue pasty, appetite impaired, bowels costive. Has been able to attend his usual business up to this time.

Prescription. Blisters behind the ears, and veratrine lotion 10 grs. to the ounce, over the brows. Oct. 25.—I saw the patient again; no improvement in the symptoms. Anasarca of the face increased. I now proceeded to make an exploration of the chest. Found the lungs normal, but a decided bellows murmur, accompanying the first sound of the heart, and indicating disease either of the aortic or mitral valves.

At my request Dr. Swett saw the case in consultation at this time, and diagnosed disease of the mitral valves, and regurgitation into the auricle. The urine, on being subjected to heat and nitric acid, was found heavily charged with albumen.

A subsequent examination elicited from Mr. B. the following facts, which throw considerable light upon the symptoms:—In February preceding, he suffered under an attack of cutaneous affection, of the nature and name of which he was ignorant, but which, from the concurrent and subsequent circumstances, must have been scarlatina. After a confinement to the house for about a month, he was again able to resume business; but during the spring suffered with rheumatic affections of the joints. In the early part of the summer he began to be affected with the amaurosis, which was partially relieved for a time by an issue in the back of the neck.

In September, he made the discovery that his feet were swollen, by the difficulty he experienced in drawing on his boots in the morning. About the same time, he found that his face began to bloat. He had never suffered with palpitation of the heart, nor with pain about the cardiac region, or shortness of breath. He had himself no suspicion of the existence of disease of the heart.

From the 25th of October to the 16th November, he became gradually worse. His condition at the latter period was as follows:—Dimness of vision increased. Frequent and pretty profuse epistaxis. Every morning when he arose from bed *he was seized with vomiting; pain pretty severe about the epigastric and umbilical region*, for which a belladonna plaster was applied without any relief. His strength was impaired, and he was now able to walk only with difficulty. He was unable to sleep at night in the recumbent posture, but was obliged to have his chest elevated. This symptom, indicatory that effusion was taking place into the thoracic cavities, was corroborated by the usual physical signs.

On the 16th November he was removed by his friends some distance into the country. He made the journey without material discomfort, except that he suffered from profuse epistaxis. He died on the 30th November, with all the usual symptoms of effusion into the chest.

For the following account of the post-mortem appearances I am indebted to Dr. McCall, of Utica, who attended him during the last days of his life.

"All the limbs, especially the lower, and the cellular tissue beneath the skin, were more or less distended with water. The pericardium contained 8 oz.

"Thorax, 1 gallon, in which were found floating flocculent portions of coagulable lymph. Abdomen only about 1 qt. of water.

"Hypertrophy of the heart, weighing 1lb. avoirdupois; its tissues soft, and easily broken down.

"Mitral valves semi-cartilaginous, with several points of bony degeneration.

"Liver unusually large, weighing 4lbs., filling up the right side and extending in front upon the stomach, pressing up the diaphragm against the lungs.

"*Stomach and duodenum a good deal engorged, their mucous coat of a slate color;* I might say all the coats in the same condition, while other portions were nearly in a state of mortification, showing a serious chronic gastro-enteritis.

"Both kidneys manifesting clearly a granular disease; right more than the left."

Remarks.—As nothing is said by the Doctor of the lungs, it is presumed they were healthy. The head was probably not examined, so that we are ignorant whether any organic lesion existed in the brain, to account for the amaurosis. But the symptoms generally which existed during life, are well accounted for by the post-mortem appearances. The vomiting and pain in the epigastrium by the softening of the mucous coat of the stomach and duodenum, and the dropsical effusions, are abundantly accounted for by the disease both of the heart and of the kidneys. It is worthy of remark, that the enlarged liver was not accompanied by abdominal dropsy, except to a very small extent.

It is an interesting point in the case to determine how far the anasarca, which first manifested itself in September, eight months after the scarlatina, is to be considered a sequela of that disease. The albuminuria might have existed during the whole of it, a point which, of course, it is now impossible to determine. The patient was not aware from his own sensations of the existence of disease of the kidneys. He suffered no pain in the lumbar region, and did not pass water any more frequently than he had been in the habit of doing when in health.

A Case of Small Pox occurring five days after vaccination.—Progress of the vaccine disease arrested for ten days.

Dr. Alfred C. Post related the following case:—

Doctor C., who had previously resided in a small village in Connecticut, removed with his family to New York in August, 1845. He had three children, the eldest of whom was eleven years of age, the second seven years, and the third an infant at the breast. The eldest child had been successfully vaccinated in infancy: the others had never been vaccinated. During the month of September, the two younger children were vaccinated: the vaccination of the infant was entirely unsuccessful: that of the next child was followed by the occurrence of a vesicle, which the father thought to be genuine, but which left behind it a small ulcer, which remained unheeded three months.

On Friday, December 5th, the infant was taken sick with fever: on Tuesday, December 9th, a variolous eruption made its appearance, and soon became confluent over almost the whole body; on Tuesday, December 16th, the child died.

On Tuesday, December 9th, the day on which the eruption appeared upon the infant, the second child, a girl seven years of age, was again vaccinated. The vaccine disease pursued its regular course until Sunday, December 14th, when the patient was attacked with fever and delirium, which continued until Wednesday, December 17th, when the variolous eruption made its appearance upon the backs of the hands. The eruption subsequently appeared upon the chest, face, and other parts of the body. It was confluent upon the backs of the hands and feet, coherent upon the extremities generally, and discrete upon the face and trunk. The delirium gradually subsided as the eruption came out, but a great degree of constitutional disturbance continued until the decline of the eruption, so much so that I did not regard the patient as being out of danger, until the process of desiccation had made considerable progress. The subsequent convalescence was very slow, several weeks having elapsed before she was able to walk. The variolous eruption was regular in its course, except that the pustules on their maturity were flatter than they usually are. The desiccation of the pustules commenced on Friday, December 26th, and was considerably advanced on the following days: on Sunday, 28th, it was nearly complete, except upon the feet. On Tuesday, December 16th, a week after vaccination, the vaccine vesicle was normal in appearance, with the exception that there was but a slight trace of an areola. During the subsequent week, it underwent no change, except that there was a little increase of size and fulness, and that it became opaque as the variolous eruption approached its maturity. It was distinguished from the variolous pustules by its large size and more regular form: several small variolous pustules coalesced with it at its circumference. On Thursday, December 25th, there was a slight incrustation at the central depression: there was very little increase of this on Friday and Saturday, so that there was less tendency to desiccation in the vaccine pustule than in the surrounding variolous pustules. On Sunday, December 28th, when the desiccation of the variolous pustules was almost complete, the vaccine pustule was found to have broken, and to have left behind it a superficial ulcer.

The above case presents several distinct points of interest. The most remarkable is the manner in which the progress of the vaccine disease was retarded by the occurrence of small-pox. The patient had been vaccinated five days at the time of the invasion of the variolous fever, and eight days when the eruption of small-pox made its appearance. The eruptive fever did not appear to affect the condition of the vaccine vesicle, except, perhaps, in preventing the formation of a distinct areola. But from the time that the small-pox eruption made its appearance, the vaccine disease remained nearly stationary, and did not go through its usual changes. It, however, increased a little in size, and the fluid contained in the vesicle became opaque, but it retained the distinct pustular character without desiccation until Saturday, Dec. 27th, eighteen days after vaccination, and ten days after the commencement of the variolous eruption.

The second point of interest is the failure of the vaccine disease to exert any material influence on the progress of the small-pox. It is probable that the vaccination which had been performed in September was spurious, and that it had no modifying influence on the subsequent variolous affection. The last vaccination, although it appeared to be genuine, had not reached a sufficiently advanced stage to exert any manifest influence in mitigating the severity of the small-pox. It may perhaps have retarded the occurrence of the eruption, which commenced twenty-four hours later than it usually does. But, considering the favorable age of the patient, the attack of small-pox was much more severe than in the average of cases, and, for nearly a fortnight, serious apprehensions were entertained as to the result.

Another interesting feature in the case is the fact that the eruption was later in its appearance upon the face than on the upper extremities, and that it remained more discrete upon the head and trunk than upon the upper and lower extremities. After the eruption appeared upon the face, I directed a mask to be worn, composed of linen spread with mercurial ointment, with holes cut for the eyes, nose and mouth. This had the effect of arresting the development of the eruption on the parts which it covered, so that it remained throughout in the papular stage. This fact was verified by Dr. Bulkley, who saw the case about the time when the eruption had reached its maturity. I have on other occasions pursued a similar practice, and with satisfactory results.

Dr. John O. Stone reported the following cases :—

Hydrocele.—About six weeks ago I tapped a man for hydrocele, without injecting the sac ; two weeks subsequently he returned again and requested me to inject it. The sac had filled up, but was not tense. I tapped it and drew off the fluid, but some impediment had offered itself to the instrument, and although the contents of the sac were easily evacuated, yet the end of the canula was confined, and felt as if it had not fairly entered the tunica vaginalis ; I was confident that it had not entered, and in order to prove the fact threw in a syringe full of water, which escaped into the cellular membrane.

On withdrawing the canula, I found that the impediment to its entrance was occasioned by two hairs which grew from the scrotum, and had caught in the slit of the instrument.

I supposed, at the time, that the injection of water would be innocent ; but it was followed with inflammation and suppuration, so that I was obliged, at two different times, to incise the scrotum and connect the two incisions with a seton. The wounds soon healed, and I then discovered that the hydrocele had become cured.

The important points in this case are—1st, that water is, in itself, an irritating fluid, or that it became so by tearing up the cellular membrane of the scrotum ; 2d, that the inflammation, &c., of the cellular membrane sufficed to the cure of the hydrocele.

Cancer of the Penis.—About a fortnight ago an old man, aged sixty-two, came to me with this disease, which had existed for fifteen years. It had commenced with cracks on the prepuce, which became hard tumors, which finally ulcerated. The disease has now destroyed the whole glans and one half of the penis ; large and foul granulations covered the extremity, and had broken through the skin on both sides, so that the whole penis was involved in the disease. The secretions from the penis were offensive, and had excoriated the skin of the scrotum. His general health was feeble, and he had the unhealthy look of a person suffering from organic disease. On examining the groins one small gland was felt, but it was small and not larger than a pea ; but there was a tumor in the abdomen, perceptible through his dress, which at first sight was supposed to be connected with the cancer ; it had the feeling of a sac containing fluid ; on percussion it was resonant, especially at the upper part, and on pressing it firmly with the fist it retreated into the abdomen.

We were satisfied that it was a ventral hernia, and having found nothing that absolutely contradicted an operation, we determined to give the old man the best chance of recovery by amputating the penis close to the pubes, and, out of regard to his feeble health, with as little loss of blood as possible.

The operation was performed as follows:—The skin of the pubes was raised and cut upwards from the penis; the skin was then drawn downwards, and a lower flap made so as to include all of the excoriated skin of the scrotum. Three arteries were tied. I then tied the penis firmly with a piece of tape, and while it was held by an assistant with a pair of polypus forceps, cut it off. The dorsalis penis artery with those of the cavernosa, were easily tied without the loss of a drop of blood. The oozing was trifling. The wound was dressed with wet lint.

It is now thirteen days since the operation. The wound has contracted fully two-thirds; he suffers much less inconvenience than before the operation; has no pain whatever, and his health has improved. He goes out daily, and constantly wears a gum elastic catheter to counteract any disposition to contraction in the orifice of the urethra.

Although nothing positive can be predicated of the ultimate success of the operation, I have some hopes that the disease will not return; and even if it does, I should think the operation justifiable for the purpose of procuring the cleanliness and comfort which this man enjoys.

The diseased penis resembled hardened lard both in look and feeling, and was nowhere of the nature of cartilage. The prepuce was found to have been dissected off from the body of the penis, nearly quite to the spot where it was amputated.

Strangulated Femoral Hernia.—A week ago yesterday, I was requested by Dr. Stouthoff to visit a delicate woman, about forty years of age, who had strangulated hernia. It had existed for many years, and she had been wearing a truss. On rising from bed she felt some pain in the groin, and found that the hernia was down, and would not be returned. The symptoms were very slight; pulse hardly excited; some vomiting, and once in a great while a single hiccough. I directed an enema of salt and water, and still later, a paper of fine cut tobacco dipped in hot water as poultice to the part. I also bled her twenty ounces of blood, when fainting came on. All our efforts at the taxis were unavailing. She was put upon opium for the night.

The next day her situation was the same, with perhaps a little more excitement in the pulse. A new trial of the taxis failing, I performed the operation.

The coverings to the hernia were very thin, as might have been expected in so spare a person. Having divided the stricture upwards and inwards towards the pubes, I could not return the bowel, and was obliged to cut again in an upward direction; perhaps I might have returned it if I had drawn the intestine a little from the abdomen before making the attempt. The omentum adhered to the sac, and after the division of the stricture bled freely; this was allowed for a time, and then was returned with the sac into the abdomen.

On the second day after the operation she had considerable fever; pulse 110, with pain towards the groin, which was increased by a cough, which had existed for some time. Ordered eight leeches to the side, which relieved the pain; but towards evening the cough became more urgent, and applying my ear to the chest detected crepitation. Directed a blister to be applied to the sternum, and gave a pill of calomel, ipecac. and opium every six hours.

On the third day the cough was troublesome and the sputa tinged with blood; pain in the side only felt on coughing; belly not swelled or painful. Yesterday's treatment was continued until the mouth became a little sore.

We had pneumonia to complicate the disease, but it gradually yielded. The pulse is now at 70; there is no pain; cough continues, but is not severe. The wound is suppurating and is partially healed. She has lived for a whole week on flax-seed tea with the exception of yesterday, when she took a little gruel. In a few days more she will be well.

Alveolar Tumor.—This morning a young man came to me with a fistula under the jaw and a cartilaginous tumor in the mouth, measuring more than an inch one way, and two-thirds of an inch the other, completely concealing from sight a decayed tooth, which, however, could be felt with the finger. In using the punch in order to loosen the tooth, I broke off a portion of the socket, from which the tumor originated, and took away the tumor. I thus obtained a fair sight of the tooth, and extracted it.

Dr. S. P. White related a case attended with some obscurity. He believed it to be "spasm of the gall-duct;" the patient is still under treatment. Dr. Post had seen the patient and felt a retroversion of the uterus, occurring between the delivery of the fœtus and that of the placenta. The patient was a young married woman, pregnant for the second time. Her last menstrual period occurred on the 22d of November. Two weeks ago she was taken with a slight colored discharge, similar to the menstrual flux. At half past one A. M., she was awakened by a pain and flooding. At three o'clock she was seen by Dr. P., who on examining the coagula found an embryo about an inch in length; on introducing the finger, the os tincæ was found to be in its natural situation; the membranes protruding; no advance being made, ergot was ordered and the patient left. In the morning on returning a second time, Dr. P. found that the patient had been carried by her husband from the room which she had occupied, across a second into a third; examining he found that the position of the uterus was changed, the broad side of the organ was first reached by the finger; the fundus was in the hollow of the sacrum and the os tincæ tight up under the pubis. In the course of two hours the placenta was delivered, and the uterus was found to have recovered its natural position.

Dr. Stewart was called four months ago to a patient aged ——— who complained of pain beneath the right breast below the nipple; she likewise complained of a sensation as if some foreign body was present. On careful examination neither swelling nor any other alteration of the normal condition of the part could be discovered. Anodyne applications were ordered. Two or three weeks afterwards the pain left the right and attacked the left breast; a few days afterwards it appeared in the left side. After an interval of two months there was pain and swelling in the groin, a foreign body being detected, a needle was extracted. Reference was had by several of the members to a number of cases, in which pins and needles had been discovered in the heart and other parts of the body. Among others, Dr. Blakeman mentioned a case in which in dissection, a pin had been found imbedded in the liver of a patient who had died of disease of a different organ.

Art. VI.—*Notes on Typhoid, and Typhus Fevers.* By the Editor.

[continued.]

In the abdomen the morbid changes were more important. The peritoneum was sometimes found extensively and highly inflamed. In the greater number it was not particularly affected. The condition of the stomach is noted in thirty-two cases. In seventeen it was nearly or quite healthy; in six there were ulcerations in the mucous membrane, in one case perforating it, in the remaining five small and superficial: in five the mucous membrane was softened more or less extensively, but in no case thickened; and in five it was somewhat mamelonated.

"In the small intestines, the mucous membrane generally was healthy, except that it was often of a deep-red color in the lower part of the ileum, and sometimes a little softened."

Dr. Hale next speaks of the appearance of Peyer's glands in their natural state, and describes the changes produced by disease. He notices four classes of appearances, according to the stage of disease in which the patient has died. When this occurs early, there is a well-defined, uniform thickening of the altered patch, commonly of a light-red color, over the whole surface, sometimes surrounded by a deeper-red line, the intervening surface being softened, and studded with numerous minute, white, opaque points. Twenty or more of these patches are often discovered. They are most numerous at the lower extremity of the small intestines, and the disease is always more advanced in those near the cœcum than at a greater distance.

In a somewhat later stage, ulcerations are observed in some of the diseased patches. They are of different sizes, sometimes quite small, at others occupying nearly the whole patch. They are situated in the submucous cellular coat of the intestine, laying bare, and sometimes destroying the muscular coat; in some instances they penetrate the peritoneal coat. In these there is the same evidence of greater progress in the patches near the cœcum. Not unfrequently there is a particularly large and deep ulcer almost or quite in the cœcal valve, while some elevated patches higher up are free from ulceration.

In cases where the patient has relapsed after a temporary convalescence, when he dies of pneumonia, or other cause, after a long struggle, the ulcerations of Peyer's glands are found cicatrized. The margin is of a bluish or greyish color, and sometimes the color is diffused over the whole patch, and a delicate mucous membrane is found extended over the cicatrized surface. The cicatrization is found farther advanced near the termination of the ileum than above, showing, as in the other cases, that the affection of the glands began in this part.

The fourth class of appearances are formed by perforation of the intestine. This is of various depths; sometimes it takes place in the peritoneal coat, and the contents of the intestine are poured into the peritoneal cavity, producing violent inflammation and speedy death. This termination is not confined to cases that have been previously remarkably severe. It often occurs in those, at first, of a mild character. The patient has been walking about the room, with a confidence of a speedy recovery, when he has been suddenly seized with excruciating pain in the abdomen, and died in a few hours. There are no intimations by which the danger of this occurrence can be foreseen.

In one or more of these modifications, an affection of Peyer's glands is found in every case of typhoid fever. Out of the thirty-three cases, nine presented only the first stage of this affection; thickening, softening, and a red surface. In eighteen, while some of the diseased patches were in this stage, others, near the lower extremity of the intestine, had passed into ulceration, the ulcers varying in number from two or three to twenty or more. In three, some of the ulcers near the cœcum had been cicatrized; and in three the intestine was perforated. The perforation was, in no instance, in the ulcer nearest the cœcal valve, and in one case it was at a distance of four inches. The periods when these changes occur are various. In two, ulcerations were found before the twentieth day; while in one the disease had continued for months, and there were but three ulcers, and no cicatrization.

The solitary glands in the small intestines were enlarged in fifteen cases. In eleven they were not visible, and in seventeen they were not mentioned in the record; probably they were not enlarged. The affection of these glands was chiefly found in the lower portion of the intestine. In the large intestines the solitary glands were found enlarged in five cases; healthy in seven; and in six they are not mentioned. In two the mucous membrane was softened. In seventeen, ulcers, quite numerous, were found in the cœcum, or first part of the colon. These ulcerations were not large, like many of those in Peyer's glands, but small and distinct. In one case, in which the immediate cause of death was hemorrhage from the bowels, a firm coagulum of blood was found hanging from an ulcer in the cœcum, showing the source of the hemorrhage. In this, and many other cases of hemorrhage, both the large and small intestines contained a considerable quantity of blood.

The condition of the mesenteric glands corresponded to the state of disease of the intestinal canal. Those glands which belonged to the healthy portion of the intestine were healthy, while those of the diseased part were enlarged, red, and infiltrated. At later stages they were found softened, and sometimes suppurated.

The liver was examined in twenty-seven cases. Its structure was healthy in fourteen; more or less soft and friable in ten; hard in one; congested in one; and in one the serous coat of the left lobe was highly inflamed, and covered with a coating of lymph.

The spleen was large in twenty-one cases. In some it was enlarged to twice or thrice the natural size, and then commonly soft in its internal texture, breaking down by pressure into a sort of thick, dark-red fluid. In seven cases it was of its natural size; in two small; in two its condition was not noted.

Dr. Hale gives an abridged history of four cases, one in illustration of each of the forms in which he has described Peyer's glands as affected.

He next proceeds to inquire as to what extent the same morbid appearances are to be found in other acute diseases. For this purpose he examined the records of 159 cases of acute diseases at the hospital. Of these, eighteen were fatal, and fifteen were examined after death. Sufficient data were not found for a comparison of the state of the head, lungs, and heart. The stomach was noted as healthy, or nearly so, in seven cases; the mucous membrane was mamelonated in three; and in five its condition was not particularly described.

The state of Peyer's glands is referred to eleven cases, in all of which they were healthy. In two the organs of the abdomen are declared healthy; in two no reference is made to them. Dr. Hale mentions six other cases of similar diseases, in all of which they were healthy. He states that there is no other disease except typhoid fever in which these glands have been found diseased in the adult. In phthisis they are the seat of ulceration and of tubercular deposits, but the appearances do not resemble the thickening and ulceration of typhoid fever.

In teething children the glands are affected in precisely the same manner as in typhoid fever. Dr. Hale has seen six cases in his practice of children who have died during teething, in which the glands were thus affected.

In four of the fifteen cases of acute disease before referred to, the solitary glands of the small intestines are noticed as enlarged; and in one they were ulcerated in the cœcum. In the remaining eleven they are not mentioned; probably because no disease was observed in them. The spleen was mentioned in three cases; in four it was small, and in three of natural size, or healthy. In one case where it was large, and in two where it was small, its texture was soft. The liver was examined in all the fifteen cases. It was healthy in seven, and somewhat soft or friable in eight. In three it was large, in three small, and in nine its size was not noticed as unnatural. The other organs furnished no points of comparison to demand attention.

From this statement, it appears that the spleen, stomach and liver, were affected in a less proportion of cases than occurred in the observations of Louis. Dr. Hale, however, considers the only essential difference between the fever of Paris and New England to be in the greater frequency of diarrhœa in the latter. This difference is, however, the same in other acute diseases.

The appearances, on dissection, as given by Dr. Hale, correspond very closely with those recorded by Louis and Chomel, as witnessed in the typhoid fever of Paris. The anatomical characters are various and complex, corresponding in this respect to its symptomatology; most of them are, doubtless, accidental, and it is difficult to determine, with any degree of certainty, what relation the most constant and essential of them bear to the disease itself.

The affection of Peyer's glands is, undoubtedly, the most important characteristic of the disease; but we cannot regard this as primary, and the cause of the other morbid phenomena. It may be one of the earliest pathological changes that takes place in the solids; but it remains to be proved that it is invariably present, or that, when present, it gives rise to the existing symptoms. On this point, some of our writers have drawn hasty conclusions from a too limited array of facts. That typhoid fever is not a gastro-enterite, is very certain; neither is it a dothinenterite; for its severity bears no constant relation to the intensity of the local disease. The phenomena of the disease cannot be satisfactorily explained from the local lesions of the intestinal canal. In short, we hold, with Bartlett, that "it is much more philosophical and satisfactory, much more in accordance with what is seen in many other diseases, to regard the lesion of the elliptical plates, not as the local cause of all the other appreciable phenomena of typhoid fever, but as constituting one of the pathological elements in a very obscure and complex disease; all which elements—and this quite as much as the others—are themselves the result of some morbific agent, or influence, or process, the nature, sources, and operation of which are wholly unknown to us."* Dr. B. supposes that the lesion of the elliptical plates bears the same relation to typhoid fever as that which their several characteristic eruptions bear to measles, scarlatina, and small-pox; in none of which can we regard the cutaneous eruptions as the causes of the symptoms and of the other various phenomena which go to make up the several diseases themselves. The *causes* of typhoid fever are as yet but imperfectly understood; *age* has a powerful influence in its production, as, in 291 cases occurring in the Massachusetts General Hospital, and analyzed by Dr. Jackson, the average age was about 22 years and a third; of 138 cases reported by Louis, 59 were between the ages of 18 and 30; and of 117 cases mentioned by Chomel, 91 were between the ages of 18 and 30 years. Louis and Chomel, also, have shown that *recency of residence* in a place, especially in cities, has an important influence in predisposing to the disease. Typhoid fever is regarded by some, and, perhaps, a majority, of our practising physicians, as decidedly *contagious.* Dr. Nathan Smith, a capital observer, considered the disease to be as contagious as small-pox or measles, and gives instances where it was apparently propagated from one individual to another. Louis has also lately expressed his belief in the same doctrine.

We have observed that typhoid fever (the *typhus* of Nathan Smith, Gallup, and others) is the prevailing fever in the Eastern States, and some believe that no other fever is met with in that region of country; it prevails in a sporadic form, however, in nearly every section of the Union, especially in the winter months. Dr. Bartlett states that he has seen it in Kentucky, where it is sometimes called the *red tongue fever.*—(Loc. cit.) Dr. J. P. Mettauer has given an account of the prevalence of the disease in Middle Southern Virginia during the thirteen years from 1816 to 1829, during which time he states that he treated more than 400 cases of it. Dr. M. regards synocha, typhoid, and typhus, as varieties of the same fever; and states that they all prevailed at different times in the same region of the country. The synocha, "which was only the more open and well-developed form of the disease," prevailed during dry and warm, and warm and damp seasons, and always as an endemico-epidemic of considerable extent. The typhus and typhoid fevers were generally confined to malarious districts; and typhus did not often make its appearance until many cases of the typhoid affection had previously occurred in a family.† The typhoid fever has been very rife in the interior of the State of New York for several years past, and has gradually spread over the whole of the Western States,‡ where, at times, it has caused considerable mortality. The migratory character of this disease is one of its most singular features. It is also extensively prevalent in the large manufacturing villages of New England, occurring far more frequently in some years and seasons than in others.

Like other fevers, the typhoid assumes many *forms* and *varieties;*

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* "The History, Diagnosis, and Treatment of Typhoid and Typhus Fever," &c. By Elisha Bartlett, M.D. Phila., 1842. 8vo.

† "Practical Observations on Continued Fever, as it prevailed in Middle Southern Virginia during the thirteen years from 1816 to 1829 inclusive." By John P. Mettauer, M.D., of Virginia. American Journal of Medical Science, July, 1843.

‡ Causes of Death in Typhoid Fever." By B. Rush Mitchell, of Ohio. Western Lancet, October, 1844, p. 268.

Louis makes three, one of which depends on the severity of the disease; Chomel describes several, as the *inflammatory*, the *bilious*, the *mucous*, the *ataxic*, and the *adynamic*, depending on the predominance of certain symptoms. One form is called by Louis *latent*, where the usual morbid phenomena are not manifested. In some seasons the disease will be mild, and the mortality small; while in others it will be severe and very fatal, the treatment being the same. Thus, in the Massachusetts General Hospital, from 1822 to 1835, there were 303 cases of typhoid fever, and 42 deaths, or about 1 in 7; in 1830, the deaths were 1 in 3½; in 1831, 1 in 14½; in 1829, 1 in 25. From 1832 to 1835, the number of cases was 129, and the number of deaths 22, being a mortality of 1 in a little less than 6; while, from 1836 to 1838, the number of cases was 108, and the number of deaths 7, or 1 in 15. From November, 1836, to November, 1838, there were fifty-five successive cases without a single death; and the treatment was essentially the same during the whole of these periods. The *duration* of the disease in this country varies, in different years, from eighteen to twenty-six days. In 255 cases treated in the Massachusetts General Hospital, between the years 1824 and 1838, the average duration, reckoning to the beginning of convalescence, was twenty-two days; and of 186 cases at the same hospital, between October 1st, 1833, and October 1st, 1839, the average duration was thirty-nine days.*

According to Nathan Smith, the disease rarely terminates under the fourteenth day from the commencement, and rarely extends beyond the sixtieth.† Relapses are not unfrequent in this disease, and it is not often complicated with other affections. Peritonitis, from perforation of the intestine, is not an uncommon accident. Of the diagnosis and prognosis we have already incidentally spoken. We may add that an extremely frequent pulse is a very dangerous symptom; so, also, are the noisy, irregular respiration, violent delirium, deep somnolence and coma, epileptic convulsions, or subsultus tendinum, great restlessness and agitation, the Hippocratic face, severe diarrhœa, involuntary discharges, hemorrhage from the bowels, retention of urine, erysipelas, &c. The prognosis can rarely be positive, as patients often recover from the most desperate condition.

In the present stage of our knowledge, then, it is impossible, perhaps, to determine whether the disease, of which we have now given an account, be a specific one; or whether it be but a variety of our continued fever, of which we have, according to some writers, an *inflammatory*, and, as recognized by our best observers, a true *typhus;* and occasionally that form called *spotted fever*. We are inclined to take the latter view of the subject, and think it desirable, as already remarked (considering the necessity of retaining the term *typhoid* to express a state of the system met with in other diseases), to designate the phenomena of this fever by the name *abdominal typhus*, the name assigned to it by German writers. The fact of its general prevalence over our country, and that its ravages are gradually extending every year, must be our apology for the space allotted to it on these pages.

The treatment of typhoid fever will hereafter be considered.

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* Jackson's Report on Typhoid Fever, pp. 108, 109, 110, 111. Hale on the Typhoid Fever of New England, p. 268.

† Smith's Medical and Surgical Memoirs, p. 56.

Typhus Fever.—That a form of fever corresponding to the typhus of Great Britain, in which there are no anatomical lesions corresponding to those described as characterizing the typhoid fever of Louis, is now generally admitted as prevailing at times in our country. It is the fever that attacks the inmates of our almshouses and passengers on board of emigrant vessels, and many such cases are annually received into the hospitals of this city. In March, 1842, the ship Eutaw arrived at New York, after a passage of forty-two days, from Liverpool, with two hundred Irish passengers, of whom seventy were sick with typhus on her arrival. Among these there were eight deaths. In May, 1842, the bark Barlow arrived at this port from Greenock, after a passage of forty days, with fifty typhus patients, there having been three deaths before her arrival. And in August, 1840, twenty-one cases of typhus fever were admitted from a single vessel into the Boston Almshouse, of which four proved fatal. The prominent symptoms in these cases were, dullness of mind, deafness, stupor, suffusion of the eyes, and dinginess of the skin. The bowels were torpid, and there was rarely any meteorism or pain in the bowels, as in the typhoid variety. Dr. A. S. Doane, late quarantine physician of the port of New York, and who treated much of the disease, states that the most striking and constant phenomena attending it were, injection of the eyes, fuliginous aspect of skin, and deafness. Diarrhœa was rarely observed, and the alvine discharges, when procured by medicine, were dark and offensive. The disease was evidently contagious, and Dr. D. remarks that during his connexion with the Institution, a period of about three years, there were no less than sixteen individuals connected with the hospital who died of typhus fever contracted from the emigrant patients.* True typhus has at different times prevailed epidemically in the almshouses of this city, attacking nurses and physicians, and often proving very fatal. We have treated many cases of the disease in this city, in individuals from on board passenger vessels, and in the narrow lanes, and crowded, filthy apartments of that class who apply to dispensaries for medical aid, and we have had abundant evidence of its contagiousness, as well as opportunities for observing its characteristic phenomena. In 1843, some forty cases of genuine typhus occurred in the immediate neighborhood of an establishment in this city for the manufacture of lard oil from putrid pork, five of which came under our treatment in a single family; all were marked by delirium and coma, dusky hue of skin, subsultus tendinum, constipated bowels, a thick, yellowish, pasty fur upon the tongue, hot skin, and full pulse, &c., and their average duration was about thirty-five days. In these cases, there was no doubt whatever that the exciting cause of the disease was the emanations from the putrid meat. We have alluded to a typhus fever described by

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* According to Dr Gerhard, the spotted fever was similar in its nature to the British typhus. Dr. J. Jackson thinks it was a different disease. Dr. Bartlett remarks that, in many important particulars, it bore a very striking resemblance to true typhus. Dr. E. North called it a *new petechial malignant typhus*, which seems a very appropriate name. Dr. Hale speaks of many points of resemblance between it and Dr. Armstrong's typhus, and also notices many strong points of difference. Dr. Bartlett has remarked that it seems to belong to that class of new and more or less temporary epidemics, each having its peculiar character, marked by its peculiar phenomena, and depending upon new and peculiar combinations of unknown morbific influences, which have always, from time to time, made their appearance, rather than to the class of established and permanent maladies.

Dr. Mettauer as having prevailed for a period of thirteen years in Middle Southern Virginia (*Am. Jour. Med. Sci., July*, 1843), and which was attributed by him to malarious causes, and propagated, especially in the cold season, by personal contagion, or idio-malaria. The blacks were most subject to this form of fever. According to Dr. Gerhard, the epidemics which overran the Middle States between the years 1812 and 1820, were of typhus fever; and of this disease Drs. Rush, Wistar, and Dorsey died. As a very perfect analysis of the symptoms of this disease, we quote the following from the work of Dr. Bartlett (*loc. cit.*):

"This disease, in the present state of our knowledge respecting it, may be defined in the following terms: Typhus fever is an acute affection; occurring at all ages of life; attacking, at least in cities, somewhat more frequently persons who are recent than those who are old or permanent residents; often transmitted directly from one individual to another; very much more common in the British Islands than anywhere else, although prevailing at times in other countries, generally in the form of circumscribed epidemics; often connected with the crowding of many persons into small, dark, and poorly ventilated apartments, amid filth and destitution; sometimes sudden and sometimes gradual in its access; attended at its commencement with chills, usually slight, and in many instances repeated; then with morbid heat of the skin, in many cases very intense and pungent; with increased quickness, with softness and feebleness of the pulse; with accelerated respiration; in many cases with the physical signs of bronchitis and pulmonary congestion; with pain in the head, back and limbs; dulness and perversion of the powers of the mind; drowsiness or stupor; dizziness, deafness, and ringing or buzzing in the ears; morbid sensibility of the skin and muscles on pressure; extreme prostration of muscular strength; spasmodic twitchings of certain muscles; dull and stupid expression of the countenance; fuliginous flush of the face; suffusion of the eyes; with loss of appetite and with thirst; sometimes with a slightly altered tongue, but in grave cases with a dry, red, brown, or black and fissured state of this organ; sordes upon the teeth and gums; occasional nausea and vomiting; frequently with a constipated or sluggish state of the bowels; epigastric and abdominal pain and tenderness; the skin of the body and extremities being generally the seat of an abundant eruption, coming out, in most cases, between the fourth and seventh day of the disease, and declining at uncertain periods during the second and third week, consisting of small spots, generally somewhat obscurely defined and irregularly shaped, not infrequently grouped and confluent, of a dusky, dingy red color, not elevated above the surrounding surface, and disappearing only imperfectly, or not at all, on pressure; the body of the patient, in grave cases, giving out a pungent, offensive, and ammoniacal odor; which symptoms differ very widely in their duration, in their march, in their severity, and in their combinations in different cases, several of them being frequently wanting, but enough of them being generally present to characterize the disease; the most constant of which are the loss of strength, the stupor, the suffusion of the eyes, the fuliginous skin, and the dusky cutaneous eruption; which symptoms may either gradually diminish in severity, and finally disappear between the seventh and thirtieth day of the disease; or may increase in severity and terminate in death between the third and twentieth day from their access, the liability to a fatal termination being much less early than late in life; the bodies of patients exhibiting, on examination after death, no constant pathological changes of any of the organs; but in a considerable, though varying proportion of cases, engorgement of the vessels of the brain, with moderate sub-arachnoid serous effusion; engorgement of the posterior portion of the lungs; redness of the mucous membrane of the bronchia; softening, or mamelonation of the mucous membrane of the stomach; the blood being generally of a dark color, often fluid, or grumous; the coagula, when formed, soft and non-fibrinous; and the body, in many cases, running rapidly into decomposition; which disease, thus characterized and defined, constitutes a peculiar, individual affection, differing essentially from all others, although related by many analogies to typhoid fever."

It is still in dispute whether there exists any essential diagnostic character between the typhus fever above described, and the typhoïd fever of Paris and America. On this subject the following remarks of Dr. Gerhard are in point:

"On considering the symptoms of typhus and typhoid fevers, we observe that the latter disease is not confined to any particular season. It commonly attacks individuals of a particular age, and exposed to some unaccustomed mode of life. It sometimes occurs at the same time that an epidemic of autumnal remittent or of typhus exists. I have seen it under both these circumstances, but I have always observed symptoms which distinguished it from either. There could be no doubt of the correctness of the diagnosis, for it was not made in private practice, but in hospitals, where there were always a number of physicians and pupils present to correct and verify the facts.

"These remarks are designed to show that the distinctive characters of these fevers are not such as in practice to allow them to be confounded together. Nor was it very difficult to acquire the facility of diagnosis, as all the better-instructed students easily attained it. That the very early stages of typhus and typhoid fevers resemble each other is true; but in no greater degree than in the early stages of typhoid fever and smallpox, which I have known to be mistaken for each other by the most experienced observers. When the initial period of the fever is passed, the disease may be readily distinguished. Even very early, before the fever assumes its characteristic appearance, there is usually some fact which may throw light upon its nature.

"1. Dothinenteritis is usually a sporadic disease, although it sometimes appears as a wide-spread epidemic. In the latter case the symptoms are so well marked, that these are never doubtful, except in a few of the earliest examples. Now typhus is very rarely sporadic; and if scattering cases do occur, they are generally connected with an epidemic and follow it, as scattering cases of cholera were observed for a long time after the great epidemic of 1832.

"2. Typhus is evidently very contagious; in the epidemic of 1836 it was quite as contagious as small-pox. I am fully convinced of its contagious nature from extensive observation as a physician to the hospital, and from the official visits and inquiries which I made as a member of the Board of Health. Dothinenteritis is certainly not contagious under ordinary circumstances, although in some epidemics we have strong reason to believe that it becomes so. It bears in this respect the same relation to typhus fever that measles do to small-pox.

"3. The initial symptoms of the two affections chiefly differ in the greater stupor, dulness, and prostration of typhus, which are in strong contrast to the moderate cephalalgia and disturbance of the senses in dothinenteritis.

"Still, there are now and then, perhaps once in twenty or thirty cases, some symptoms which are apparently common to the two forms of fever. Just as in the diagnosis of measles and scarlatina there is usually no difficulty; but we sometimes see cases of a hybrid character in which the most experienced physicians may be doubtful. In two or three cases out of three hundred, the symptoms of typhus and typhoid fever seemed blended together; but these were slight forms of disease, which are necessarily less distinct than those of a more severe type. In practice, such cases are too rare to give rise to any difficulty.

"The more severe cases of dothinenteritis sometimes resemble typhus fever very closely, but the resemblance is confined to the symptoms offered by the patient in the most aggravated period of the disease, and does not extend to the succession of symptoms. Indeed, if these cases of typhoid fever are examined at the early stages of the disease, they are certainly more characteristic than the slighter varieties; and although the symptoms occurring during a single day would lead us into error, the comparison of the successive changes will always guide us.

"When the disease is completely formed, the characters on which the distinction between the two forms of fevers rest are, 1. The suffusion of the eyes, which occurs in every case, or nearly every case, of typhus fever, with the dusky-red aspect of the countenance; 2. The extreme stupor and inactivity of the mind, even when positive delirium does not exist; 3. We also observe in typhus no constant abdominal symptom, and at first merely dulness on percussion and feebleness of respiration at the posterior surface of the lungs; 4. If to these symptoms be added the peculiar eruption of petechiæ, which is scarcely ever absent in whites, there remains hardly a possibility of error. In the typhoid fever, we consider as distinctive characters the prostration, the somnolence, the slow development of nervous symptoms, which are not so strongly marked as in typhus. The abdominal symptoms are tympanitis, pains in the abdomen, and diarrhœa The sibilant rhonchus is heard in the chest; and, lastly, there is an eruption of rose-colored papulæ and sudamina upon the skin.

"It is not necessary to insist upon the diagnosis between typhus and the ordinary autumnal remittents. The peculiar season at which these latter diseases originate, their progress and termination, all differ too widely from the symptoms of typhus to allow of error, without extreme inaccuracy of observation.

"Some rare cases of pneumonia, especially when they occur in drunkards or patients whose constitutions are enfeebled from other causes, resemble typhus in many particulars. Indeed, the diagnosis is vastly difficult, were it not for the petechial eruption, as the stupor is sometimes considerable, and the suffusion of the face and eyes nearly as great as in typhus. If in these cases we are totally without knowledge of the early circumstances, we may occasionally mistake a case of pneumonia for typhus fever. But we could scarcely confound the pneumonia, which appears as a mere complication in typhus, with the original inflammation of the lungs. In some of these cases we derive less benefit than we could anticipate from the physical signs, because pneumonia may be present and be readily distinguished by auscultation, but, at the same time, be strictly secondary. Neither bronchitis nor angina resembles typhus, unless they occur as an epidemic."—(*Am. Jour. Med. Sciences,* vol. xx., p. 307.)

It remains for future observations to determine the precise relations which these diseases hold towards each other.

[*To be continued.*]

Art. VII.—*Obstetriciana.* By Bennet Dowler, M.D., of New Orleans.

The title of this paper I use as a sort of *carte blanche,* to ramble where I please, without attempting to write a monograph. The artist who painted a sign, with a horse on one side and a bear on the other, finding that people could not tell the difference, wrote the name under each. This I shall not do with the *dramatis personæ* in these sketches, most of whom are beyond the reach of praise or blame. The "all-atoning power of the grave" generally silences malice itself. But to correct errors affecting health and life, to turn away occasionally from the realms of romance and its imaginary woes, to the realities of life; in a word, to consider the silent but courageous sufferings of woman, with the aim of lessening evils not wholly removable, are objects of greater importance than the triumphs of Alexander, or the discoveries of Newton.

The following passage from the life of Mungo Park, by Sir Walter Scott (Fam. Lib., No. 105), represents obstetrical life, with some exceptions, in Western Virginia, which now contains more than half of the white population of the State:

> "There is no creature in Scotland that works harder and is more poorly requited than the country doctor, unless, perhaps, it may be his horse. Such a rural man of medicines is usually the inhabitant of some petty borough or village, which forms the central point of his practice. But besides attending to such cases as the village may afford, he is day and night at the service of any one who may command his assistance within the circle of 40 miles in diameter [mine in Virginia was double that], untraversed by roads in many directions, and including moors, mountains, rivers and lakes. For late and dangerous journeys through an inaccessible country; for services the most essential, rendered at the expense of his own health and life, he receives at best a very moderate recompense, often one which is totally inadequate, and very frequently none whatever. He mounts at midnight, and traverses in darkness, paths which, to those less accustomed to them, seem formidable in daylight; through straits where the slightest aberration would plunge him into a morass, or throw him over a precipice, on to cabins which his horse might ride over without knowing that they lay in his way, unless he happened to fall through the roofs. When he arrives at such a stately termination of his journey, where his services are required either to bring a wretch into the world or prevent one from leaving it, the scene of misery is often such, that, far from touching the hard saved shillings which are gratefully offered him, he bestows his medicines, as well as his attendance, for charity. I have heard the celebrated traveller, Mungo Park, who had experienced both courses of life, rather give the preference to travelling as a discoverer in Africa. He mentioned having once upon a time ridden 40 miles, sat up all night, and successfully assisted a woman under the influence of the primitive curse, for which his only remuneration was a roasted potatoe and a draught of buttermilk. But his was not the heart which grudged the labor that relieved human misery."

One of the most unpleasant features in country practice, originates in the great importunity among patients and their friends for delivering with celerity, requiring almost constant efforts, or seeming efforts for this end, otherwise the accoucheur may lose the confidence of all present, perhaps encounter their displeasure. In towns, thanks to the superior intelligence of the ladies, this is seldom the case. The doctor is not perpetually required in the bed-room, unless in certain emergencies. Where nothing is required he does nothing. This importunity leads to the untimely administration of ergot, which causes the death of many children. Many midwives, as ignorant of anatomy as the simple stargazer is of astronomy, desirous of expediting the labor, seize any salient point of the child, or of the organs of generation of the mother—they pull! On the 19th of January, 1832, I was called to see Mrs. M., who had been delivered three days previously by a midwife, who had pulled the external organs so as to cause mortification, from which she recovered with difficulty. Much of the vagina sloughed. Another midwife, in a breech case, pulled by the genitals of a male child, until they were torn off, causing its death in a few days after birth. On the 27th of November, 1832, I was called to see Mrs. R., 15 miles distant in the country, whom I had attended with success in a former labor. Mr. R., like some other farmers, kept a set of tools for making shoes in rainy weather. No sooner had he started for a doctor, than the midwife, in whose care he had left his lady, went to the shoemaker's bench and selected a large pair of pincers, with which she seized the skin of the child's head, which had presented in the usual manner; she tore open the vertex, and exposed the brain. When I arrived, after some hesitation, she brought the child from one corner of the room, where it had been covered up, but did not offer any explanation. The child lingered two days in great misery I doubt whether this woman suffered any loss of practice by this murder. Indeed, the frequent vivisection of children, during childbirth, under pretences of various kinds, is very apt to enhance the reputation of the male practitioner. I could name ladies whose children have been dissected under the pretence that the pelvic bones are deformed, or too narrow, and who since have had large living children, and some of whom I have delivered with the greatest facility myself. For the honor of our profession, it is hoped that such cases are not often met with, though MM. Bayle and Gibert declare, that in France, especially in large cities, the most popular accoucheurs are those possessing the least merit and probity. (*Dict. de Méd., Art. Accoucheur.*)

In obstetrics, ignorance causes more mischief than dishonesty. A very amiable young woman, an only child, during her first labor, had a convulsion, while an old accoucheur of much reputation was attempting to deliver her. In order to prevent her from biting her tongue, her father held her teeth asunder, and, during her struggles, dislocated her jaw. After being attended by two aged accoucheurs and physicians, who gave her sundry medicines without dreaming of a luxation, I was called 37 days after the accident, and reduced her jaw at once. The displaced bones had formed bad ulcers within the cheeks; purges and slops (for of course she could not chew anything during 37 days) had reduced her strength and blooming appearance.

A midwife, very old and celebrated in her vicinity—more than a quarter of a century in practice—seven miles from town (Clarksburg, Virginia), requested my services for "a falling out of the womb," as she called it, in her own person, of thirty years' standing, which, as she related, often became dry, tender, swelled, and so painful as sometimes to cause fainting, and had recently kept her wholly in bed. I found a pudendal hernia, which had descended within the pelvis, opposite the acetabulum, distending the right labium, pushing the vagina to the opposite side, displacing the womb in that direction. The womb was high up, and in all respects natural—a portion of the vagina had descended, covering the intestine. A midwife, ignorant of the position, size, and properties of the womb! her own womb!

Another midwife of much practice (peace to her *manes!* I owe her no ill-will—with her dying breath, she bequeathed to me the obstetrical jurisdiction over her children and grand-children), made it a rule to keep the patient awake the whole of the first night after an accouchement. She placed watchers at the bed-side to prevent sleep, in order to insure good luck to the mother and child!—a practice as cruel as dangerous, after the tumultuous actions, moral, mental, and physical, incidental to labor—actions followed by exhaustion, for which sleep is the best remedy—actions which lay the foundation of febrile movements, when the rest is disturbed. In such cases Sancho Panza's benediction "on the inventor of sleep" is well merited, as all ought to know. Dr. Rigby, in his obstetrical lectures, says, that in Germany there is an old saying, that a *primipara* [she that is delivered of her first child] ought not to be allowed to sleep for the first twelve hours after her labor. These Germans have some odd notions in New Orleans. In several instances at my first visit after delivery, I have found the children bandaged like mummies from the feet up, including the arms, which are placed against the sides. The whole chest is so tight, that the child sucks with difficulty in some cases. The body is almost rigid from the great amount and tightness of the bandages. I have never been able to induce the parents to remove them, until after a certain number of days. The theory is a very simple one—the child was crooked before birth, and requires straightening while its bones are soft. It has so happened that these children have done very well; they proved remarkably straight, active, and healthful, in the few cases which I have observed. Perhaps this was accidental.

Not long since, a German midwife, who had delivered a watchmaker's lady ten days before of a child, letting the placenta remain all that period, requested my aid—to bear the responsibility, I ought to say, of the woman's death. She had flooded from day to day; the arteries had ceased to beat in the extremities; she was nearly speechless—could scarcely swallow a little cordial; all the tissues, even the tongue and gums, were cold and blanched. A large placenta, nearly putrid, bathed in fetid blood, lay chiefly in the vagina—a portion extended within the *os tincæ.* It was instantly and easily removed. The woman had bled to death, from a want of *skill* in the midwife.

Those accoucheurs greatly err, in regard to the delivery of the placenta, who say,—leave all to nature. This midwife had left all to nature, simply because she did not know how to deliver the placenta, the cord of which had been broken. Retained *placentæ,* when they fail to cause hemorrhages, sometimes bring on a fever like typhus. Retention, I am inclined to think, is occasioned by hour-glass contractions of the uterus oftener than is generally supposed. It is very surprising that Dr. Dewees never met, in his own practice, with a case of hour-glass contraction. I have met with a number. In two cases, the *placentæ* were retained so long that the ladies, as it were, forced me to deliver, after I tried ergot, &c. In the first case I was completely puzzled, not thinking at the moment of such a condition of the uterus—I explored its inner surface and found nothing—but on pulling the cord, I found it led through a firm strictured aperture which, I overcame, according to the rules laid down in such cases: in the next case, I found an ossific union between the placenta and womb—a firm, cancillated network, crushing like the shelled bird's egg,—the whole being separated slowly, was brought away as usual in the hand. Never have I witnessed any pain, or ill effects, from introducing the hand and wrist into the uterus upon such occasions. Retained *placentæ* give rise to putrefactive odor of the most offensive kind: the sooner they can be safely got away the better for all parties.

Probably no town in the United States of equal population presents so much bad midwifery as New Orleans. Here, unlike other places, the evil of mal-practice falls not on the poor alone, but also on the rich. who often employ negresses that happen to be lucky. The late Judge Waggaman, formerly of the United States Senate, informed me, that some years since an old, drunken negress, who was a midwife on his plantation, being called to a young black woman in her first labor, took a sharp case-knife, and performed the Cæsarean section, taking out a living child! The mother recovered soon, and had no inconvenience of a permanent kind, excepting a slight incontinence of urine. If this lucky negress had performed this operation for a rational end, obstetrical surgeons might have trembled for their laurels, since, according to Merryman and Blundell, it has been performed only twenty-six times in the British Isles, and has proved fatal to the mothers with but two exceptions.

Nearly all the white midwives of New Orleans are from foreign countries, and, with a very few exceptions, uneducated in their profession; and, as the law is becoming a dead letter, so far as medical practise is concerned, the number is augmenting rapidly. The law has done everything necessary to correct the evils of quackery: it requires, in all branches of medicine, and in both sexes, education, examination, and license. The Faculty, or the Medical Board, or both, are to be blamed. It is hoped that they may yet be galvanized into life, before all is lost.

"Midwives in France," says Dr. Stewart, "after two years' study at the School of Delivery, and submitting to two satisfactory examinations, receive a diploma to practise, always, however, under certain restrictions, one of which is, that in no case, and under no circumstances whatever, shall they resort to delivery with instruments without the attendance of a physician. They amount, in all France, to the number of 450, and practise almost exclusively among the lower classes of the community." (Hospit. Paris, 1843.) This number, divided into the whole population, will give an average of one midwife to every 75,000 inhabitants; while New Orleans has, probably, one for every thousand,—nineteen in twenty of whom, it is supposed, could not give an account of the bones of the pelvis, or its diameters; of the womb, or its annexiæ; to say nothing of the general mechanism of parturition. In one respect the negresses are more safe than a vast majority of the German and Irish midwives,—they will condescend to consult with doctors when difficulties arise, &c.

A few years ago, I was called to the mother of a considerable family, in labor with a monster more extraordinary in size and shape than, perhaps, any described by the late Geoffrey St. Hilaire—a monster in which it would be difficult to trace that unity of organization which this naturalist has shown to prevail even in the deviations of structure, designated as *lusus naturæ*—being three-legged, four-footed, doubled-spined, single-ribbed; in the trunk and viscera, single; in heads, necks, and arms, double; massive, unyielding, and probably weighing twenty-five to thirty-pounds. The woman bathed in cold sweat; breathing quick; hiccupping; pulse and vital forces failing. A demented, or, at least, a stupid midwife was pulling by one leg, which she had found. Although there was now no hope from the Cæsarean section, or from any source whatever, the monster was carefully dissected as far as I could reach—along its posterior spine, corresponding to the maternal spine, to the shoulders of the monster; its anterior spine, corresponding to the maternal symphysis pubis, was removed about half-way up; one arm was obtained with difficulty, but the mass, which lay beyond the reach of instruments, was immovable, and the woman was dying, and soon expired. The Cæsarean section was performed. The four arms, upper part of the trunk, two necks with large heads—the foreheads directly opposite each other, formed a mass like an inverted cone, the apex of which was formed by the presenting parts, or legs,—a mass much of which was quite above the superior strait of the pelvis.

Although my obstetrical odds and ends are not exhausted, yet the reader's patience probably is; I will, therefore, ask him to take a "ride" in the country called Western Virginia.

I was called at dark to visit a clergyman's wife, thirty-five miles distant. Our road wound through deep narrow valleys shut in among precipitous hills a thousand feet high, covered from their bases to their summits with trees, loftier, larger, more numerous, and more dense, than I have ever seen within or without the tropics. Sometimes the arm of one tree impinges, or perhaps the whole trunk leans against another, causing, when the wind is up, a very peculiar sound, or many sounds;—some are low and mournful; others acute, shrill, and like the prolonged screams of a person in pain. Indeed, many honest people regard these sounds as coming from that sort of population, which Milton says, "walk the earth unseen both when we sleep and when we wake." The night is starless and as dark as Erebus. The foliage is dense. The firefly, and decaying phosphorescent trunks of fallen trees, shed an uncertain light. Creeks and rivers must be forded. The guide and myself, under all these disadvantages, soon achieved twenty-five miles by the aid of a road, and by the sagacity of our trusty horses. But the worst was to come. The guide, desirous of shortening the distance, left the road which was circuitous—entered a pathless forest, choked up with underwood and bushes—ascended a small water-course to its head—scaled a lofty dividing ridge or mountain—crossed its sharp summit—descended the opposite declivity, amid rocks and precipices, and with all the skill of a hunter, came down upon the house, at the base of the ridge, where the patient lived. The lady, robust and muscular, aged thirty-seven, had been in labor for the first time, no less than two days, and was given up by all as hopeless; the midwife, as usual in such cases, declaring "something was wrong." Some febrile symptoms were present, but the case presented nothing remarkable, but thickness, rigidity, and firmness of the *os uteri*, which, on taking two pounds of blood from the arm, yielded. In less than three hours a healthy child was born without any apparent increase in force of the uterine pains.

In not a few cases since, especially when marriage had been deferred beyond the 30th year, I have had occasion to adopt this practice, even in New Orleans and its vicinity, where labor is certainly easier than in Virginia.

In 1838, I kept an account of twenty-one consecutive labors. Fourteen were first labors, which, as all know, are generally the most tardy. Three were delivered of the children, not the placentæ, before I could reach the bed-side. Two children were born in five minutes; one in ten minutes; one in fifteen minutes; one in thirty minutes; three in one hour; two in two hours; six in three hours; one in four hours; one in six hours, after my arrival. About half or two-thirds of these I saw in the first stage, attended with short regular pains, the *os uteri* directed backward, with moderate dilatation. Two were in the second stage;—strong expulsive intermitting pain; opening of the *os tincæ;* protrusion of the bag of waters; flushed face; distension of the vessels of the head and neck; mental perturbation, &c.; one was a breech case, and occupied only four hours; ten were Irish; three English; eight Americans, and nearly all acclimated, or more than a year in this city. Now, if we except the delivery of the *placentæ*, and omit the irregular premonitory pains, unattended with expansion of the uterine orifice, the average time of active labor will probably not exceed three hours. Without pretending to possess sufficient *data* to place this conjecture beyond question, I am very certain that parturition occupies less time in New Orleans than in Virginia. In the latter, the women are robust, work hard, and have hard labors. The rich who are temperate and judicious, have the advantage, not only in longevity, but in easy child-birth; other things being equal.

Mrs. W., for nearly two years a captive (the only white adult), among the Camanche Indians of Texas, informed me a few months since, that parturition is by no means easy among the squaws of that nation. The dreamy speculations of philanthropists concerning the blessings of poverty, have been dissipated by statistical writers in all countries, who now agree that health, long life, and the increase of population, bear a direct relation to the physical comforts of mankind. No unprejudiced physician can practise long without being convinced that both himself and patients might avoid an immense amount of physical evil (among the rest, often sickness), by having riches, or at least a competency. The opulent city of New York contains more population than all the Indian nations of North America—and why? The Indians lack physical comforts.

Be the cause what it may, labor appears to be less protracted in New Orleans than in northern climates. The European accoucheurs assign to the first stage of labor alone, from twelve to fourteen hours; some condemn such delay, and recommend mechanical dilatation at the end of ten or twelve hours. The Princess Charlotte, heiress presumptive to the British throne, was in labor from Monday, 7 P.M., to Wednesday evening, and died two hours after the delivery was finished, owing, as Dr. Hamilton says, to Sir Richard Crofts allowing the first stage of labor to continue too long. The accoucheur, to make the matter worse, committed suicide. Perhaps a blood-letting would have saved all the parties.

MM. Bayle and Gibert (*Dict. de Méd.*) estimate the mean duration of labor in Paris, among those who have had one or more children, at from six to twelve hours;—first labors being twice as long.

For my part, if blood-letting be not contra-indicated, I should prefer it to artificial dilatation; but, in our genial climate, where the tone of the muscular system abates much of its rigidity compared with colder skies, neither method will be often necessary.

New Orleans, Oct. 1, 1845.

Art. VIII.—*Indigenous Medical Botany.* By Stephen W. Williams, M.D.

In the early part of my practice, I devoted a considerable portion of my leisure hours to the study and cultivation of botany. In connection with Mr. Edward Hitchcock, now President of Amherst College, and Dr. Dennis Cooley, now of Michigan, I examined several hundred species of plants growing in our fertile valley and on the adjacent mountains. No finer field for botanical research can be found in our country than the rich alluvion of our extensive meadows, which are watered by Deerfield river, just before it empties itself into the Connecticut. This river rises in the Green Mountains of Vermont, and in its meanderings it runs a distance of more than eighty miles, and in its floods it bears the seeds of many of the plants of these mountains, which are almost alpine, and deposits them in the fertile soil of our meadows. Here they germinate, and in addition to those which spontaneously grow here, they augment the number of the species to a greater extent than is to be found in almost any other locality of the river.

My object in attending to the study of our indigenous plants at that time, was principally for the purpose of investigating the medicinal properties of such of them as might be useful in the cure of disease, and I have been overpaid by finding so many useful plants here, which have been used either scientifically or empirically. More than three hundred species have been noticed here, the properties of which are medicinal. I have either compiled or made original remarks in my note and common-place books, upon each of these plants, and have made them the bases of many of my observations upon Medical Botany in my lectures in the Medical Colleges of Dartmouth, N.H., and Willoughby, Lake Erie, Ohio. I have, also, drawings and paintings of most of them, principally executed by my wife and daughters.

I have always been much pleased with a series of papers on the indigenous botany of Great Britain, published in the London Medical and Physical Journal, about the year 1804, entitled a "Catalogue of such British plants as have been found in any shape serviceable to man, whether in a medicinal, economical, culinary, or agricultural point of view, together with an account of the uses which they have been made to answer, and an accurate botanical description of each plant." I have conducted my observations upon a somewhat similar plan in relation to the medicinal plants growing in this section of the country, and I hope they may be of some service, both to the medical student and to the practitioner. Of course, many of the observations are compilations,—many of them, however, are original. I have endeavored to procure information from every source which presented itself, either from the learned or the unlearned, from the aboriginal Indian, and from the illiterate old woman. Some useful information may be obtained even from such sources. Much of the information, therefore, is cabalistical, superstitious and apocryphal. The judicious reader can easily separate the wheat from the chaff.

Dr. Rush, in one of his valedictory lectures to his students, recommending to them the study of botany, observes:—

> "Let me recommend to your particular attention the indigenous medicines of our country. Cultivate or prepare as many of them as possible, and endeavor to enlarge the materia medica by exploring the untrodden fields and forests of the United States. The ipecacuanha, the Seneka and Virginia snake roots, the Carolina pink-root, the spice wood, the sassafras, the butternut, the thoroughwort, the poke and the stramonium, are but a small part of the medicinal productions of America. I have no doubt but there are many hundred other plants which now exhale invaluable medicinal virtues in the desert air. Who knows but that it may be reserved for America, to furnish the world from her productions, with cures for some of those diseases which now elude the power of medicine? Who knows but that at the foot of the Alleghany Mountain there blooms a flower that is an infallible cure for the epilepsy? Perhaps on the Monongahela or the Potomac, there may grow a root that shall supply, by its tonic power, the invigorating effect of the savage or military life in the cure of consumptions?"

Inflamed somewhat by observations like these, I am induced to send for the "New York Medical and Surgical Journal," a few remarks upon one or more of our medicinal plants, and if they meet the approbation of the Editor and readers, I may, perhaps, furnish it with more.

LYCOPUS VIRGINICUS.—Common name. This, like other plants, is *dignified* by various appellations. Here it is vulgarly called water agrimony. In other places it is designated by the names of horehound, water-horehound, middle-confound, middle-comfrey, brown-bugle, water-bugle, bugle-wort, stickle-wort, herb carpenter, gypsey-wort, Paul's botany. *French*—Lycope de Virginie. So much for deviations from technical terms.

Five species of Lycopus are enumerated in the New Edinburgh Encyclopedia; six by Rafinesque, and five varieties. It is found in the natural order, Lamiaciæ or Labiatæ of Lindley, in the class Diandria Monogynia of Linnæus.

Generic Description.—Calyx campanulate, equal 4-5 toothed, with the throat naked inside. Corolla scarcely larger than the calyx, campanulate, equal 4 cleft stamens, two rather projecting, distant. Anthers 2 celled, with nearly parallel distinct cells. *Lindley.*

Specific Description.—Leaves broad, lanceolate, serrate, narrowed at base; calyx shorter than the seed, but not prickly; stem obtusely quadrangular; leaves opposite, smooth, variously toothed; flowers in small whorls; the calyx short and unarmed. Between this and the Lycopus Europæus there are all intermediate varieties. Wet grounds, July, Aug. Perennial. *Bigelow.*

Use.—A very important property of this species of Lycopus has been almost entirely overlooked by writers on the subject, and that is its astringency. It is, in fact, one of our very best vegetable astringents. It is to this principle of its astringency that I wish particularly to invite the attention of my readers. I have used it with marked success in my practice for more than thirty years, in all kinds of hemorrhages, and I thinkin this respect it is quite equal to the geranium maculatum, catechu or kino. So much am I accustomed to the use of it in cases of uterine hemorrhage, hæmatemesis, hæmoptysis, hæmaturia, menorrhagia, epistaxis, &c., that very many of my neighbors and friends are as much in the habit of gathering it at the time of its maturity as they are of gathering sage, thoroughwort, and many others supposed to be indispensable culinary or medicinal herbs, and they sometimes resort to the use of it without consulting a physician. I have found it more particularly serviceable in hæmatemesis than in the other kinds of hemorrhages. Here it operates more directly upon the mouths of the bleeding vessels, than in hæmoptysis and uterine hemorrhages. I think I have been instrumental in saving life by the use of this plant in this complaint. In the other hemorrhages, although it does not operate so directly upon the bleeding vessels, I think, in addition to its astringency, it produces a sedative effect, and I believe it has, like digitalis, the power of diminishing the frequency of the pulse, and it is on this account that I continue the use of it a great length of time.

When young, I was very subject to bleeding at the nose, and was sometimes reduced by it almost to a skeleton, and the surface of my body appeared to be almost bloodless. By a persevering use of a decoction of this plant, I have reason to believe I was much relieved, if not cured, of this troublesome and sometimes dangerous complaint. I have given it successfully in many other cases of a similar character. In these and all other cases of hemorrhages, the use of it must be continued for a long time, and with great perseverance. As it is apt to produce constipation of the bowels, I always direct cathartics, laxatives, and laxative enemas after the use of it. Owing to its sedative properties, it has the power of quieting irritation in cases of harassing coughs; hence various preparations of bugle, as it is often called, have been long in repute for the cure of consumption. Drs. Pendleton and Rogers, of New York, who, according to Rafinesque, were some of the first inquirers into the properties of this plant, have published several cases of hæmoptysis cured by it, and also several cases of incipient phthisis, and he says, that this has been confirmed by Drs. J. M. Smith, Ives, Lawrence, and himself; and he further says, that the plant is now much used in New York and New Jersey. It has been much and beneficially used in the New York Hospital. Rafinesque has made many experiments with the plant, and he says, that the results are—

> "That, although it does not cure the consumption nor heal the lungs, it is very useful in hæmoptysis, in plethoric habits, and internal inflammation; I consider it a very good substitute to all narcotics, prussic acid, and even to bleeding, since it produces the same state of the pulse and arterial system, without inducing any debility, or acting on the heart or brain in any injurious manner."

He believes it may be used with advantage in many diseases in which it is required to quell inordinate action of the blood vessels. In some parts of New Jersey it is used in cases of dysentery and diarrhœa, and it is a diseases adjuvant in fevers, and particularly proper in the inflammatory useful of drunkards, and in diseases of the heart.

My late intimate and highly esteemed friend, Dr. Ansel W. Ives, of New York, thought the plant a very mild narcotic, and several eminent physicians in New York, on account of this property of the plant, have used it in the early stages of consumption and bleeding at the lungs.

The best form of administering it is, to infuse an ounce of the plant in a pint of boiling water, sweeten, if the patient pleases, to the taste, and let him drink as much as he pleases of it during the day.

A friend of mine, a respectable practitioner, and a Fellow of the Massachusetts Medical Society, wrote me a long account of this plant, as long ago as the year 1830. After accurately describing this and some other species of Lycopus in a page of foolscap, he closes his letter upon it as follows :—

"The use of the Lycopus Virginicus is, and has been, as you well know, highly recommended in cases of internal hemorrhages, more particularly hæmoptysis; but it has been found to exert an equally efficacious effect in all cases of uterine hemorrhage and in hæmatemesis. As all these diseases are of a character and importance which will justify, if not demand, the utmost efforts of physicians, in preventing the disastrous effects which they have too often produced, I have given to them an anxious and untiring attention, and from the few observations of others published on the subject of remedies in the prevention, palliation or cure of them, I have zealously and successfully adopted the Lycopus as pre-eminent in its healing and curative effects in these ever-to-be-dreaded diseases. From my experience in the use of it, and the uniform good results of it, I think I can with safety recommend its use, as being a remedy that will not fail the judicious practitioner in a great majority of cases in which it is fairly indicated. As such, and with such views of the subject, I have taken the liberty to communicate to you, Sir, my opinion. If you should feel the subject to be as important as I do, be pleased to write me on the subject, with the result of your practice in the use of the remedy; also, that of others in the profession, with whom you may have intercourse. I will only observe farther, at this time, that I have found the decoction given cold, as the best and only manner in which it is to be employed, and that thus used in my practice it has never failed of producing very happy results in more than forty cases."

To show the opinion which some of the ancient physicians entertained of the efficacy of this plant, see what old Culpepper said of it in the year 1653, nearly two hundred years ago. We ought by no means to lose sight of the testimony of the early writers in our profession, especially on medicinal substances, the virtues of which have been handed down unimpaired to us. Surely that must be a valuable medicine on which so much has been said.

"*Bugle.*—This herb belongs to Dame Venus: if the virtues of it make you fall in love with it (as they will if you be wise) keep a syrup of it to take inwardly, and an ointment and plaster of it to use outwardly, always by you.

"The decoction of the leaves and flowers made in wine and taken, dissolves the congealed blood in those that are bruised inwardly by a fall or otherwise, is very effectual for any inward wounds, thrusts or stabs in the body or bowels, and it is an especial help in all wound-drinks, and for those that are liver-grown (as they call it). It is wonderful in curing all manner of ulcers and sores, whether new and fresh or old and inveterate; yea, gangrenes and fistulas; also, if the leaves bruised and applied, or their juice, be used to wash and bathe the place, and the same made into a lotion, and some honey and alum cures all sores in the mouth and gums, be they never so foul, or of long continuance; and works no less powerfully and effectually for such ulcers and sores as happen in the secret parts of men and women. Being also taken inwardly or outwardly applied, it helps those that have broken any bones, or have any members out of joint. An ointment made with the leaves of the Bugle, Scabius and Sanicle, bruised and boiled in hog's grease until the herbs be dry, and then strained forth into a pot for such occasions as shall require; it is so singular good for all sort of hurts in the body, that none that know its usefulness will be without it.

"The truth is, I have known this herb cure some diseases of Saturn, of which

> I thought good to quote one. Many times such as give themselves much to drinking are troubled with strange fancies, strange sights in the night-time, and some with voices, as also with the disease ephialtes, or the mare. I take the reason of this to be (according to Fernelius) a melancholy vapor made thin by excessive drinking of strong liquor, and so flies up and disturbs the fancy and breeds imaginations like itself, viz., fearful and troublesome. Those I have known cured by taking only two spoonsful of this herb after supper two hours, when you go to bed. But whether this does it by sympathy or antipathy, is some doubt in astrology. I know there is a great antipathy between Saturn and Venus in matters of procreation; yea, such a one, that the barrenness of Saturn can be removed by none but Venus; nor the lust of Venus be repelled by none but Saturn; but I am not of opinion this is done this way, and my reason is because these vapors, though in quality melancholy, yet by their flying upward seem to be something ærial; therefore I rather think it is done by sympathy; Saturn being exalted in Libra, in the house of Venus."

I hope my readers will not think, by the above extract, that I am a believer in astrological botany. I copy it to show the science of the times, and also the estimation in which the plant was held at that period. See also, Salmon's Dispensatory, eighth edition, 1716.

Deerfield, Mass., Jan. 21st, 1845.

ART. IX.—*A Few Cases of Disease.* By G. C. MONELL, Newburgh, Orange Co., N. Y.

DISSECTING ANEURISM.—The infrequency of this disease is perhaps sufficient reason for publishing the following case.

The patient was a strong, fine looking negro, a cook on board a Liverpool packet, aged about fifty, and except an occasional uneasiness at the epigastrium, evidently caused by indigestion, had enjoyed uniform good health.

Aug. 12th, 1844. He was attacked with severe colic, accompanied with hot skin, soft, full pulse, and previous constipation. Forty grs. of calomel, and i ℥. of oil, accompanied with copious injections, cooled the skin and relieved the pain, but did not move the bowels; the loss of twelve or fourteen ounces of blood, about six hours after the calomel and oil were taken, produced slight faintness, and was soon followed by free evacuation of the bowels, and entire subsidence of the pain. He continued to improve, and by the 17th, was nearly recovered, complaining of nothing except weakness. On the 17th, after lying down for an hour, after dinner, he attempted to rise, but immediately fell back, and died instantaneously without a word. On examination, twenty-four hours after death, all the organs of the chest and abdomen were found healthy, excepting the heart. The pericardium contained about a pint of fluid blood, and the same of coagulated. The cavity of the left ventricle was dilated, being increased about one-fourth, and the walls proportionally thickened. The blood had escaped into the pericardium through an opening in the aorta, just above the semilunar valves. On opening the aorta, the serous coat was of a dusky red appearance, and somewhat thickened, but uniform and smooth. Half an inch above the orifice of the aorta was a Z shaped opening, about one-fourth of an inch long, through the lining of the vessel, and the inner lamina of the muscular coat; a passage for the blood was now formed between the two lamina, embracing from half to three-fourths of the entire circumference of the artery, and extending as far as we could examine (we were obliged to remove the heart by stealth, and examine at home, lest, by attracting the attention of two or three friends present, we should lose the specimen), which was about six inches. The origin of the innominata, and the carotid and subclavian, were plainly included in the disease, though to what extent we could not determine; and if any inference could be drawn from the part of the aorta preserved, and still in my possession, the dissection must have continued nearly, if not quite, to the iliac arteries. The rupture into the pericardium was circular and ragged, and situated a very little below the internal opening, which was smooth and even. The laminated structure of the middle coat was clearly apparent, and left no doubt that the fictitious canal was formed by a separation of the inner and outer layers of this tunic. The specimen is a fine one, and it is greatly to be regretted that we were unable to trace it out as far as it extended.

POLYPUS OF THE HEART.—This affection, though more frequent than the preceding, rarely causes immediate death without previous warning. In the present case, however, there had never been a suspicion of cardiac disease; respiration and circulation were performed without any apparent obstruction. The subject of the disease was a physician, residing in this village, of long experience, and highly esteemed; he was rather over the medium size, and somewhat corpulent; he was perfectly temperate in his habits, and though not of an active temperament, faithfully performed the duties of a large and laborious practice.

April 27th, 1842. He was seized in the morning, after previous exposure to wet and cold, with severe pain throughout the body, but more especially in the lower limbs; much prostrated, skin cool and pale, pulse weak, but moderately full. Stimulants were applied to the body and limbs, and stimulating injections thrown into the rectum. Reaction soon followed, when about twelve ounces of blood were drawn from the arm, which gave almost entire relief. A few hours after, however, at his own suggestion, he took an emetic, which operated as desired, and he expressed himself nearly well. In the evening he complained of pains, extending from the spine to the body and limbs; these were removed by cupping, and he retired to rest, expecting to attend to his professional duties on the day following. Two or three times in the course of the night he awoke and asked for drink, but immediately slept again, until about 4 o'clock in the morning, when he awoke and complained of being tired, and in a few minutes suddenly gave a spring to one side, and was dead.

Examination sixteen hours after death.—Head not examined. *Lungs* slightly congested, but pervious through their whole extent. *Heart* natural in size and external appearance; it contained no blood.

In the left ventricle, and extending into the aorta, was a fibrous concretion, comparatively recent, but evidently formed previous to death; yet not of sufficient size to seriously obstruct the circulation. In the right ventricle was a similar but much older concretion, attached to the walls of the ventricle and the columnæ carneæ; extending upward it diminished in circumference to about the size of a pipe stem, when it passed the opening into the auricle, and again expanded until it nearly filled the cavity of the auricle. It *had* also been attached by a broad base to the superior surface of the auricle, but this latter attachment was now separated, and the polypus forced down into the auriculo-ventricular orifice completely plugged it up, thus necessarily causing instantaneous death.

Was the attack the previous day caused by a *partial* separation of the polypus from the auricle? or, was the first attack a case of common congestion, and thus perhaps causing the entire separation which produced the sudden death?

Aneurism of the Aorta.—I did not see this case until an hour before death; the previous symptoms, however, were obtained without difficulty, and probably truly.

The patient was a laborer in a brick-yard, between 40 and 50 years of age, of middle size, lymphatic temperament, and, except a slight difficulty of breathing, enjoyed perfect health; the dyspnœa, however, was never sufficient to impede his daily labor until about the middle of August, 1841, when he suddenly fell senseless, while engaged at his work. It was supposed at the time that he had fainted, as he soon revived, and again resumed his usual labor. After this his dyspnœa increased somewhat, yet he followed his daily work for about two weeks, when, while walking up hill with a load on his shoulders, he was suddenly seized as at first; he revived in about an hour, but still complained of distress in the chest; he was now bled and purged, with great relief, and resumed his labor for about a week, when he was again seized as before, while engaged in the same work. After an hour or two the faintness passed off, but great dyspnœa remained, amounting almost to suffocation, which was but slightly relieved by the treatment, which consisted of bleeding, purging, and a blister to the *throat*, where the patient himself complained of great obstruction.

He had been in this state three days when I saw him; I found him sitting up in bed, leaning forward, in great agony, struggling for breath; his countenance, expressive of intense distress, exceedingly pale. He died in about an hour, evidently suffocated.

On examination after death, the first object that presented on raising the sternum was a large tumor, closely adhering to that bone, throughout its upper half, except about an inch at the top, which was eroded to the depth of two or three lines. The tumor was found to be an aneurism, which, together with the heart, was carefully removed. The chest contained about three pounds of coagulated blood, which had escaped from rupture of the aneurism. The tumor was about five inches in diameter, and would contain probably eight or ten ounces; the walls were from an inch to an inch and a half in thickness, formed within, as usual, by layers of coagula. The rupture had taken place at the upper part of the aneurism where the walls for two or three inches round were brittle, in fact almost rotten; the lower parts of the walls were firmer and lined within by the serous coat. The opening from the aorta was at the top of the ascending arch, and one inch in diameter. The heart itself was healthy in all its parts; the lungs were also healthy.

Miscarriage.—The following case presented several new features to me, and may not be without interest to some others.

Mrs. S., pregnant with her first child, probably two months; during which she had suffered much from morning sickness, languor, &c. At this period I was sent for on account of pain and slight hemorrhage; rest and opiates removed these symptoms for two days, when they again returned, and in a short time she passed, with considerable pain, a substance which I did not see, but which she informed me was the size of a black walnut, resembling clotted blood; it was supposed to be an abortion. A slight discharge, but no pain, continued for a fortnight, during which time she attended to her household affairs as usual. The breasts were somewhat swollen for a few days, and contained a little milk. *The morning sickness and all the sympathetic symptoms entirely disappeared*, and there was now not the slightest doubt, either in her mind or my own, of the abortion; even the areola around the nipple, which was distinctly discolored, resumed its natural hue. In two weeks, as before mentioned, the discharge ceased, and she expressed herself as well as ever. Two weeks after this she complained of a stuffed feeling in the pelvis, and more especially the right iliac region. A cathartic was administered, the operation of which removed the feeling in part; it, however, returned and increased during the next fortnight. There was now an evident fullness over the pubis, and still more a little to the right; an examination per vaginam proved this to be an enlargement of the womb. During the examination, a clot of blood, or rather a deposit of fibrin from the blood, for it was almost like flesh, escaped from the os uteri, and was immediately followed by a rapid flow of florid blood, amounting by measure to five pints, while nearly a pint must have escaped the vessel. The patient manifested no alarm, but expressed herself greatly relieved, and after the discharge had ceased, which it did entirely the next day, said that the difficulty was completely removed. She resumed her usual duties in a day or two, complaining only of slight weakness; when the next menstrual period approached she again complained as before, though not to the same extent. The discharge (menses, as she supposes) took place at the regular time, but after continuing two days passed off without affording much relief. Three days after this she awoke in the night, cold and chilly; in the morning had a severe chill, intense pain in body and limbs; these symptoms were removed by stimulants, when regular uterine pains of considerable severity followed. I then examined, though I must confess, without any very definite purpose,—and to my astonishment, found the os uteri dilated, and a fœtal head presenting, and in three hours she was delivered of a full four months' fœtus; about a quarter of the placenta had plainly been separated from the womb for a considerable time. She soon recovered and did well. The dates are purposely omitted. Here then we have a pregnancy accompanied with the usual sympathetic symptoms of considerable severity; we have pain and hemorrhage, followed by a supposed abortion; the sympathetic symptoms all cease; something that passed for lochia, continued for two weeks, during which the patient has resumed her domestic duties and feels well; the dark-colored areola disappears; two or three weeks after, there appears a perceptible fulness over the pubis, ascertained to be the womb; this is accompanied by a feeling of fulness, a stuffed feeling; a large quantity of blood, retained by a coagula, escaped, and the patient appears well, and the fulness is gone. She goes on four weeks, and has, as she supposes, her usual discharge, and three days after gives birth to a child. It was singular that the first pain and hemorrhage was not followed by abortion, considering her active exercise; it was still more singular that she should escape after the second and large discharge, she still exercising as usual: but that the sympathetic symptoms should all disappear, and especially the areola round the nipples, was to me entirely a new occurrence.

Obstruction of the Bowels.—The object of the following case is to show the effects, apparently and probably really produced by electro-magnetism. The patient, a widow lady of about fifty-five years of age, was taken, ten days previous to my seeing her, with bilious vomiting and intense pain in the bowels, accompanied by constipation. The pain ceased in three or four days, but the vomiting continued, and was now stercoraceous. She had been bled to faintness, had taken calomel until the gums were sore, had taken one drop of croton oil every hour, for several doses, besides various other cathartics, and repeated ordinary injections. I found her on the eleventh day, without fever, bowels somewhat tender, and vomiting fæcal matter every hour or two. The injections before used had been given with a common syringe and allowed to come away immediately. I used the rectum tube and force pump, but could not throw up more than a quart at once, which, however, was compelled to be retained for half an hour, when it was suffered to pass, and after a little repeated. This was continued for six times, until the injection, which at first returned mixed with fæcal matter, came away, after being kept up an hour, almost as clear as when given. The symptoms nearly the same; there was evident obstruction, and, probably, invagination of the small intestines. I now used Mr. Pike's electro-galvanic apparatus, applying a pole on either side of the abdomen; this was continued for twenty minutes, when there was evident commotion in the bowels, and in ten minutes more there was a regular evacuation, thin and small in quantity, but distinctly of a fæcal character and the first in eleven days. The vomiting ceased entirely; two hours after, the battery was again used, and in twenty minutes produced a free operation. A dose of oil operated in the usual time, and the patient rapidly recovered. There was no doubt in my mind but the favorable change was produced by the electro-magnetism, though more probably by the successive shocks producing muscular action, rather than by any electro or magnetic agency.*

Variola.—These cases are related as simple matter of fact, without wishing to use them either to deny or defend the opinion, that chicken pox and small pox may arise from the same contagion.

Oct. 11, 1844.—C. S——, after a day or two of previous indisposition, had a chill, followed by slight fever. Oct. 13th, an eruption appeared on the chest and then on the face; this presented all the characteristics of chicken pox, and was so pronounced. Oct. 18th, the vesicle had scabbed in the usual way. The patient was confined to the house but a day or two, and required no medicine. He had been away from home, but was not aware of being exposed to any eruptive disease.

Oct. 23d.—Mahala, sister to the above, had a chill, with pain in the loins, followed by considerable fever. Oct. 25th.—Eruption appeared on the face and afterwards on other parts. 28th.—Vesicles fully formed and very numerous; none of them depressed in the centre. Nov. 2d.—Mostly scabbed. She was confined to her bed about a week.

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* I would remark that I always avoid the use of this machine during pregnancy. In one case, however, where I used it for chronic rheumatism, without being aware of the pregnancy, it apparently caused a miscarriage, which followed after about twelve or fifteen applications.

Oct. 27.—De Witt, æt. 3 years, had a chill, with severe pain in the loins, followed by intense fever. 31st.—Eruption appeared on the face, and after on the body. Nov. 2d.—Completely covered with vesicles well filled. Nov. 3d.—Those on the face distinctly depressed in the centre; and others not so distinct over the whole body. Nov. 4th.—The pustules on the face so confluent as to look almost like a single sore. Nov. 5th and 6th.—Secondary fever, with delirium. 7th.—Begins to decline. 8th—Still better and begins to scab; after this he recovered rapidly. On the face, as remarked, the disease was confluent, a single scab covering almost the entire cheek. On the body and limbs they were as numerous as possible, to be distinct. The first two had been vaccinated, the last had not. There were no others in the family except the wife of the first named patient; she had been vaccinated, and had a slight chill, but no fever and no distinct eruption. Chicken pox prevailed at this time in the village, but no small pox appeared until near a month after, when there was one case of severe small pox, supposed to be caught in New York, and some thirty or forty of varioloid, none of which were severe.

Art. X.—*An Account of the African Fever as it prevailed on board the U.S. Ship Preble, during her late Cruise, with an Abstract of forty-three Cases.* By S. Wilson Kellogg, M.D., U.S.N., Surgeon of the Vessel, communicated in a letter to the Editor.

[CONTINUED.]

Case XXI.—*Nov.* 28*th.* John Bannister, Boy, admitted with the usual symptoms. ℞. Hydrarg. prot. chlor. gr. x., ext. col. comp. gr. vj. M. ss.

29*th.* Better; no fever; nothing ordered.

30*th.* Had more febrile excitement this morning; complains very much of pain in the back; effervescing draughts.

Dec. 1*st.* Improving. Continue treatment. Sago.

2*d.* Not as well; has an exhausting diarrhœa; tongue clean, but very red; pulse very quick and feeble (112); some tenderness on pressure on the epigastrium. Apply cups, and after blister. ℞. Mist. cret. ℥ss qq. hora.

3*d.* Worse; diarrhœa better; blister has not drawn; tongue red and dry; pulse very rapid and feeble; eyes suffused; skin cold and clammy; is perfectly sensible; is very restless; moans much; complains of no pain. Brandy and water freely; thin arrow-root, and wine.

4*th.* Worse; inclined to stupor, but can be roused without much difficulty; pulse 140, scarcely perceptible; skin cold and covered with a profuse sweat; could not see his tongue; features sharpened. Continue brandy and water.

Died at 4 P.M. Body not examined.

Case XXII.—*Dec.* 1*st.* John Brice, Seaman, admitted, with the usual symptoms. ℞. Calomel. gr. vij. colocynth. ext. gr. vj. M. s. s.

2*d.* No change; complains of some headache; has hot, dry skin pulse quick, rapid and full; bowels freely opened by cathartic. Apply cups to temples; effervescing draughts.

3*d.* Better; less fever; very little pain in the head; skin moist; pulse less rapid. Continue effervescing draughts.

4*th.* Fever very slight. Continue as yesterday. Arrow-root.

5*th.* As yesterday. Continue treatment. Rice and milk.

6*th.* Rather more fever this morning; pulse 90, full and soft; tongue red, and covered with a yellow fur; bowels regular; skin hot, and moist. Effervescing draughts.

7*th.* Rather worse; high febrile excitement; great depression of spiits; skin hot, and dry; pulse 100, quick and feeble. ℞. Mass. hyd. gr. iij., pulv. ipecac. gr. ¼, qq. 2da hora.

8*th.* As yesterday; bowels very loose. Apply cups to epigastrium. Continue blue mass. and ipecac.

9*th.* Rather better; bowels less relaxed; skin warm and dry; tongue moist, and covered with a yellowish fur; has slight headache; pulse 90, and feeble; faints whenever he attempts to get up. ℞. Mass. hyd. gr. iv., quininæ gr. ij., M. qq. 2da hora, s.

10*th.* No material change. Continue treatment; arrow-root.

11*th.* Pulse 94, feeble; skin cool, and moist; tongue moist and covered with a brownish fur; thirst slight; no pain; says he "feels comfortable;" bowels open; asks for something to eat; continue mass. hyd. without quinine; arrow-root.

12*th.* Improving; pulse less frequent, and fuller; skin warm, and moist; tongue cleaning; continue treatment, and arrow-root.

13*th.* Tongue nearly clean; pulse 78, full and feeble; no thirst; skin natural; bowels open; continue treatment; arrow-root, wine and water.

14*th.* Convalescent.

Case XXIII.—*Dec.* 1*st.* Samuel Reese, Boy, admitted with the usual symptoms. ℞. Calomel. gr viij., pulv. rhei gr. xv., M. s. s.

2*d.* As yesterday; is very restless; delirious, with considerable febrile excitement; bowels freely opened. ℞. Calomel. gr. ij., pulv. rhei gr. ij., pulv. ipecac. gr. ss., M. qq. 3ia hora, s.

3*d.* No material change; continue treatment.

4*th.* As yesterday; skin very hot and dry; pulse rapid and soft; tongue red at the tip and edges; thick yellow fur in centre; is very thirsty; bowels free; continue effervescing draughts.

5*th.* As yesterday; continue treatment; arrow-root.

6*th.* No material change; continue treatment.

7*th.* No change; continue treatment.

8*th.* Better; continue treatment; rice and milk.

9*th.* As yesterday; continue treatment and diet.

10*th.* Better; continue treatment; rice and molasses.

11*th.* Convalescent.

Case XXIV.—*Nov.* 30*th.* Smith Owens, Seaman, admitted with the usual symptoms. ℞. Calomel. grs. xij., ext. colocynthid. c. grs. vj. M. ss.

Dec. 1*st.* Pain in head very severe; high febrile symptoms. Apply emp. episp. to neck. Effervescing draughts.

2*d.* Slightly better. ℞. Calomel. gr. ij., pulv. ipecac. gr. j., m. qq. 2da hora. s.

3*d.* No change. Continue as yesterday. Arrow-root.

4*th*. Rather better. Continue treatment and diet.

5*th*. Better. Continue treatment. Rice and milk.

6*th*. Has rather a stupid look ; skin hot and dry ; pulse 100 and feeble ; restless ; no sleep ; bowels open. Continue effervescing draughts. Weak porter and water.

7*th*. Skin less hot, and slightly moist ; otherwise no material change. Continue treatment. Rice boiled.

8*th*. Skin cool and dry ; delirious ; pulse very rapid ; has a tendency to slide to the foot of his cot ; cannot get him to put out his tongue ; bowels free. ℞. Calomel. gr. ij., quininæ gr. j., camphor. gr. v. M. qq. 2da hora ; sinapisms to feet and legs ; wine and water.

9*th*. Sinking rapidly ; tongue dryish and covered with a brown fur ; sordes on the teeth ; pulse 120 and very feeble ; skin cold and clammy ; is inclined to stupor, but can be easily roused ; passes his stools in bed. ℞. Camphor, quininæ aa. gr. v., qq. 2da hora. Wine and water.

Died in the evening. Body not examined.

Case XXV.—*Nov.* 30*th*. John Flanagan, Seaman, admitted with the usual symptoms. ℞. Calomel. gr. ij., ext. colocynth. c. gr. vj. M. ss.

Dec. 1*st*. Better. Effervescing draughts.

2*d*. Improving. Continue treatment.

3*d*. Improving. Continue treatment. Sago.

4*th*. Improving slowly. Continue treatment and diet.

5*th*. Improving. Continue treatment and diet.

6*th*. Better. Continue treatment and diet.

7*th*. Sank suddenly during the night ; found him almost pulseless ; skin cold and clammy ; says he feels perfectly well ; tongue covered with a dark, dirty yellowish fur ; is inclined to be comatose, but is easily roused, and appears to have his senses perfectly. ℞. Ammon. carb., camphor. aa. gr. v., every hour ; brandy and water ; sinapisms to feet ; blisters to the back of neck and inside of thighs.

8*th*. 9*th*. 10*th*. No change. Continue treatment.

11*th*. No material change ; pulse more distinct, but very feeble ; tongue covered with a dark brown fur ; dark offensive sordes on the teeth ; skin cold and clammy ; voice almost extinct. Continue treatment ; will probably die to-day.

12*th*. Died at 2 A.M.

Autopsy eight hours after death.—Brain.—Dura mater considerably injected. Pia mater and arachnoid deeply engorged. Substance of the brain natural as to firmness, but much injected. Choroid plexus engorged with blood. No effusion in the ventricles.

Thorax.—Lungs healthy. In the pericardium were found eight ounces of serum.

Abdomen.—Stomach contained about six ounces dark bilious-colored fluid. Peritoneal coat considerably injected. Mucous coat softened and presenting dark-colored patches, and numerous bloody points or dots. Liver much enlarged and slightly softened. Gall-bladder very much distended, and contained ten ounces of natural bile. Spleen natural in size, but softened. Duodenum injected, and its mucous coat softened. Caput coli presented a number of dark purple patches in a state of almost complete disorganization. Other organs normal. The blood was much lighter colored, and more tenuous than natural, and the same condition, in this respect, existed as in the case of Manuel Francisco.

Case XXVI.—*Nov.* 30*th.* Robert Cleves, old Seaman, admitted with the usual symptoms. ℞. Calomel. gr. xij., ext. colocynth. c. gr. vj. M., ss.

Dec. 1*st.* Better; effervescing draughts.

2*d.* Improving; continue as yesterday.

3*d.* Better; continue treatment; sago.

4*th.* Improving; continue treatment and diet.

5*th.* Skin warm, and slightly moist; great thirst; tongue red, and covered with a whitish slime; pulse frequent and feeble; no pain; bowels very loose; stools watery and acrid. ℞. Mist. cret. ℥ss. after each stool; arrow-root.

6*th.* Diarrhœa has stopped; skin warm and moist; tongue less red; restless; pulse 110, and very feeble; wine and water; effervescing draughts if skin becomes hot and dry.

7*th.* Much worse; pulse very rapid, and almost imperceptible; skin cold, and covered with a profuse sweat; stupid, and cannot be roused; breathing hurried and difficult; tried to give brandy and water, but could not get him to swallow it; apply mustard to feet and legs.

Died at 2 P.M.

Case XXVII.—*Dec.* 3*d.* Thomas Davis, Seaman, admitted; complained yesterday of pain in head and back; skin very hot and dry; pulse frequent, full and quick; bowels constipated. ℞. Calomel. gr. xv., followed by ol. ricini ℥i.

4*th.* No change; high fever; cathartic produced one scanty stool. ℞. Calomel. gr. iij., pulv. ipecac. gr. j., M. qq. 3ia hora, s.

5*th.* Was much tormented last night by a distressing singultus; applied a blister to epigastrium, which relieved it; slept quietly all the latter part of the night; has no pain at present; pulse 90, soft and small; skin warm and moist; tongue slightly furred; bowels open; effervescing draught.

6*th.* Improved since yesterday; is doing very well; tongue cleaning; continue as yesterday.

7*th.* Better; continue treatment.

8*th.* Improving; continue treatment; rice and milk.

10*th.* Convalescent.

Case XXVIII.—*Dec.* 3*d.* J. F. M., Esq., Lieut., admitted with the usual symptoms. ℞. Calomel. gr. xij., ext. colocynth. c. gr. vj. M. ss.

4*th.* Slight remission this morning; complains of giddiness; slight pain in head and back; skin warm and moist; tongue thickly coated with yellow fur; pulse full, soft, rather quick; about 88; bowels moved three times; stools dark and bilious; vomited freely yesterday yellow bitterish matter; applied mustard to epigastrium; effervescing draughts.

5*th.* As yesterday, continue effervescing draughts; sago.

6*th.* Better; no fever; pulse 80; skin moist and natural; tongue much loaded, but is beginning to clean. ℞. Sol. sulph. quin. gr. ij., qq. 2da hora; arrow-root.

7*th.* Convalescent.

Case XXIX.—*Dec.* 3*d.* Wm. A. Henry, æt. 22, Acting-Master, admitted with usual symptoms. ℞. Calomel., colocynth. ext. c. aa., gr. v.

4th. As yesterday; the irritability of the stomach increased; tongue less coated; apply mustard to epigastrium and feet; effervescing draughts.

5th. Better; has a remission of fever; continue treatment.

6th. Not as well; had a very hot fever last night, with great pain in the head; stomach very irritable; cupped him freely on epigastrium; sponged surface freely with alcohol and water; was very restless all night; this morning has a slight remission; continue effervescing draughts.

7th. Has considerable febrile excitement; no change; stomach less irritable; continue treatment.

8th. No better; tongue coated with a yellow fur; skin hot and dry; has a feeling of tightness about the head; nausea; no stool for two days; pulse 114, quick and feeble; tenderness on epigastrium; apply blister, pulv. seidlitz; effervescing draughts.

9th. Has not had a free evacuation from bowels for several days; had high fever last night; ordered mass. hydrarg. gr. x., to be followed by seidlitz powder; had a slight operation during the night; feels more comfortable; no sleep; no pain; very little heat of skin; pulse 108, and rather feeble; pupil of left eye a good deal dilated, the other slightly so. ℞. Mass. hydrarg. gr. xxiv., pulv. ipecac. gr. j., M. div. in pil. viij.; one every two hours.

10th. No material change; no movement of bowels; ordered an enema last evening, which operated slightly; feels rather more comfortable; skin natural; tongue loaded with a dirty whitish fur; pulse 110 and feeble; restless and despondent; continue treatment.

11th. No better; gave an enema, which produced one free stool; complains of vertigo, and indistinctness of vision; pupil of left eye much dilated; continue pills; apply emp. episp. to neck.

12th. Failing; pulse 110, very feeble; answers questions very well; voice very feeble; less restless; heat unequally diffused; body warm; extremities cool; tongue moist, pale, flabby, and covered with a dirty whitish fur; is slightly deaf; very despondent; some thirst; one small stool; says he feels no pain; moans a good deal; continue treatment; allow a small portion of sago frequently.

13th. Worse; failing fast; pupil of left eye much dilated; has a convulsive twitching of left leg; slight subsultus; tongue tremulous, protruded with difficulty; fur growing dark; countenance expressive of pain; says he has no unpleasant sensation; no tenderness of abdomen; great thirst; pulse 140 and indistinct; restless; moans when he sleeps; sleep disturbed by startings; breathing difficult and irregular. ℞. Mist. ammon. carb. gr. v., qq. hora; omit pills; wine and water; continue sago; apply sinapisms to feet; blister over the region of the heart.

14th. Had low muttering delirium last night; about midnight appeared to be dying; feet and hands very cold; the free administration of stimulants revived him somewhat; complained of difficulty in voiding urine, which is in large quantity, and quite light colored; this morning face pale and shrunken; tongue quite dry, and covered with a very dark brown fur; sordes on the teeth; skin hot and dry about the chest; slight moisture on the hands; appears to be conscious; pulse extremely rapid and fluttering; respiration hurried; apply sinapisms to feet, thighs, and body; continue wine; cannot swallow the mist. ammon. carb.; blister has reddened the skin only slightly. About 10 A.M., was seized with a convulsion; respiration difficult and slow; pulse fluttering, and scarcely to be felt; features much sharpened; appears to be moribund; frictions to extremities; sinapisms; wine, if he can swallow it.

Died at 4½ P.M. Body not examined.

Case XXX.—*Dec.* 1*st.* Hyppolite Bontems, W. R., Cook, admitted with usual symptoms. ℞. Calomel., colocynth. aa., gr. v., M. ss.

2*d.* Has a slight remission of fever this morning; effervescing draughts.

3*d.* Improving; continue treatment.

4*th.* Has no fever this morning. ℞. Quin. mist. gr. ij., qq. 2da hora.

5*th.* Not as well; faint whenever he attempts to raise himself in his cot; skin hot and dry; tongue red; pulse 96, and feeble; thirst slight; omit quinine; effervescing draughts.

6*th.* Skin hot and dry; tongue clean; pulse 100, soft and small; bowels costive; great depression of spirits; no pain. ℞. Magnes. calcin., pulv. rhei aa. ℈j., aquæ ℥ij., M. coch. magn. qq. hora, until it operates.

8*th.* Bowels freely opened; otherwise no change. ℞. Mass. hydrarg. gr. iv. qq. 2da hora; very weak beef tea.

9*th.* Convalescent; no fever. Sol. sulph. quin. qq. 3ia hora; beef tea.

Case XXXI.—*Dec.* 3*d.* Thomas Carey, Seaman, admitted with usual symptoms. ℞. Calomel. gr. xij., ext. colocynth. c. gr. vj. M. ss.

4*th.* Fever high; has pains in back and shoulders chiefly; skin hot and dry; pulse frequent, full, and soft. ℞. Calomel. gr. ij., pulv. rhei gr. iij., pulv. ipecac. gr. ss., M. qq. 3ta hora.

5*th.* No better; cups to epigastrium; continue treatment.

6*th.* Complains much of pain in right shoulder joint; otherwise no change; apply cups to seat of pain; continue treatment; rice and molasses.

7*th.* Has considerable fever; complains much of pain in the back; continue treatment.

8*th.* No change; continue treatment.

9*th.* Better; applied a blister to spine last night, and ordered ol. ricini ℥i., which produced several free stools. ℞. Mass. hydrarg. gr. iv., pulv. ipecac. gr. ¼. M. qq. 2da hora.

10*th.* No change; apply blister to epigastrium; continue treatment.

11*th.* Slightly better; continue treatment; arrow-root.

12*th.* Slightly better; slept tolerably well; pulse less frequent; otherwise no change; continue treatment; arrow-root.

13*th.* Improving; continue treatment; arrow-root.

14*th.* Improving slightly; bowels not open for the last two days. ℞. Ol. ricini ℥i.; continue other treatment; arrow-root.

15*th.* Convalescent; bitter infusion; beef tea.

Case XXXII.—*Dec.* 1*st.* Henry Freeman, Landsman, admitted with usual symptoms. ℞. Calomel. gr. xij., ext. colocynth. c. gr. vj., M. ss.

2*d.* Better; effervescing draughts.

3*d.* Better; continue treatment; bread and tea.

4*th.* Improving; continue treatment; arrow-root.

5th. Doing well; continue treatment; rice and milk.

6th. Not as well; pulse 120, small and feeble; skin hot and dry; considerable diarrhœa; tongue furred and moist; little thirst; is inclined to sleep; says he feels very well; asked for rice and milk; allow it; weak wine and water; craves effervescing draught; let him take it.

7th. No better; pulse 100, and feeble; skin hot and dry; tongue moist; bowels rather freely purged; no pain; sleeps a good deal; stomach irritable; apply mustard to epigastrium; effervescing draughts.

8th. Rather better; skin hot and dry; no pain; tongue moist; pupils slightly dilated; great thirst; pulse 108, and feeble; some tenderness on epigastrium; apply blister; mustard to feet; effervescing mixture; sponge skin with tepid water.

9th. No material change; pulse less frequent. ℞. Quininæ gr. ij., qq. 2da hora; weak wine and water; rice and milk.

10th. No change; no movement of bowels. ℞. Magnes. calc., pulv. rhei aa. ℈j. M. ss.

11th. No material change; pulse 92, full and soft; skin cool on head and extremities; hot about the body; tongue clean, pale, swollen, and moist; no thirst; slight pain in the head; pupils of eyes dilated; vision indistinct; sleeps tolerably well; bowels constipated; enema; afterwards ℞. Calomel. gr. ij., qq. hora s.; omit quinine; arrow-root.

12th. Pulse 80; feeble; slept well; skin equally warm, and slightly moist; pupils natural; continue treatment.

13th. Improving; slept well all night; has a good appetite; pulse, skin, and tongue normal; omit medicine; bitter infusion, ℥ij. qq. 3ia hora; arrow-root, with wine.

14th. Improving; continue treatment; oysters; rice and milk.

15th. Convalescent.

Case XXXIII.—*Dec. 3d.* Pemberton Martinett, Landsman, admitted with the usual symptoms. ℞. Calomel. gr. xij., colocynth. extr. gr. vj., M. ss.

4th. Cathartic operated slightly; repeat it; complains of pain in back and lower extremities; has none in the head; skin warm and moist; tongue slightly furred.

5th. Doing well; effervescing mixture.

6th. Rather more fever; continue treatment.

7th. Not as well; pulse frequent and feeble; skin warm and moist; slight diarrhœa; apply cups to epigastrium.

8th. Skin hot and dry; pulse extremely quick and feeble (130); thirst very great; slight pain in head; very restless; pain in back very severe. ℞. Mass. hydrarg. gr. iv., pulv. ipecac. gr. $\frac{1}{4}$, M. qq. 2da hora s. Sponge skin with alcohol and water.

9th. Was seized last evening with violent agitation of the tendons of both arms, but chiefly of the left; could not rouse him; pupils much dilated; skin cold and clammy; could not feel the pulse; ordered sinapisms to feet and legs. ℞. Pulv. camphor. gr. v., mass. hydrarg. gr. iij., M. qq. hora s.; brandy and water. This morning is better, can be easily roused; slight coma; pupils less dilated; skin warm; pulse feeble, and very frequent; much less spasmodic twitchings of the tendons; continue the treatment prescribed last evening; blister to back of neck.

10th. Improved greatly; subsultus tendinum nearly gone; tongue clean; pulse 74, full and soft; skin moist; no thirst; no pain; omit medicine. ℞. Quin. sulphat. gr. ij., mass. hydr. gr. iv., M. qq. 2da hora s. Rice and milk.

11*th*. Better; pulse 72, full and soft; no pain nor thirst; no subsultus; tongue clean; skin moist; continue quinine; appetite good; rice and milk; beef tea for dinner.

12*th*. Convalescent; oysters; discharged.

Case XXXIV.—*Dec. 4th*. Joshua P. Halliday, Seaman, admitted; complains of pain in head, back, and extremities; great thirst; dry, hot skin; pulse full, soft, and frequent; tongue red, and slightly coated with a yellowish fur; bowels costive. ℞. Calomel. gr. xij., ext. colocynth. c. gr. vj., M. ft. pil. ij. ss.

5*th*. Rather better; mustard to feet; effervescing draughts.

6*th*. Vomited nearly all night; stomach rejects everything; skin hot, and very moist; pulse 94, and very feeble; tongue very red; applied cups, and afterwards mustard to epigastrium; continue effervescing draughts.

7*th*. Better; has very little fever this morning; no vomiting; bowels free; continue treatment.

8*th*. Pulse 88, full and soft; skin cool and moist; eyes very red and watery; had no sleep; very restless; complained of being chilly during the night; bowels open; has some pain at the base of the brain; apply emp. episp. to nape of neck. ℞. Quin. et rhei gr. ij., qq. 2da hora.

9*th*. Rather better; slept tolerably well; pulse 100, soft and feeble; add. mass. hydrarg. gr. ij., to the quinine and rhubarb.

10*th*. As yesterday; continue treatment.

11*th*. Better; has a slight remission; continue treatment.

12*th*. Better; pulse 80, full and soft; no febrile symptoms; says he has a good appetite; continue treatment; rice and milk.

13*th*. Convalescent; bitter infusion.

Feb. 9th. Surveyed, condemned, and sent to the United States.

(*To be continued.*)

PART SECOND.

Critical Analysis.

Art. XI.—*Lectures on the Theory and Practice of Medicine.* Delivered by Prof. Chapman, in the University of Pennsylvania; prepared with permission, from Dr. Chapman's manuscripts, and published with his approbation. By N. D. Benedict, M.D. Phil.: Lea and Blanchard, 8vo., pp. 258.

We are somewhat at a loss to know whether we are to consider Dr. Benedict as the Editor or the Author of the present work; for if it is a "compendium" of Prof. Chapman's Lectures as alleged, we then see no particular propriety in claiming it as a production of his own. Dr. B. says in his Preface, that "the *author* (i. e. himself) expects it to stand *chiefly* upon the merits of the great man, on whose voluminous writings it is founded." Now the work is, or is not Dr. Chapman's. If it is partly Dr. C.'s and partly Dr. B.'s, why call it a compendium of Dr. C.'s Lectures at all? We do not wish to be hypercritical, but we wish to know whether *all* the opinions advanced in these pages belong to Dr. Chapman, or whether they are part interpolations of Dr. Benedict. We object decidedly to any mongrel or hybrid productions of this kind; but if we are to have them, let us know to which of the respective authors the different parts belong. We shall, however, assume the entire work to be Dr. Chapman's.

The chief use, we take it, of the present compendium is, as a Text-Book for those students who attend Dr. Chapman's Lectures; for others, we think it very meager and unsatisfactory, only exciting hopes that are sure to be disappointed. To present merely the heads of a subject, may serve to revive it in the minds of those who heard the eloquent prelections of the author; but those who have never enjoyed this advantage, will find nothing in this book, which might not be compiled from the most meager treatise on the Theory and Practice of Medicine. Indeed, for want of the arguments which Dr. C. usually advances in support of his opinions, the reader will meet with many things to which he cannot subscribe, though dogmatism stand in the place of positive facts. We need but specify a few examples of this kind.

And first, the doctrine that *there is no idiopathic fever*, but that "all fevers are sympathetic of a primordial local disturbance" (p. 23). The proof advanced in support of this untenable and exploded theory is most unsatisfactory. Because in the true *phlegmasiæ*, as fever following injuries, &c., the febrile action is the result of local injury and disturbance, *therefore* we are told that we have reason to believe that the same holds true with respect to the "so-called idiopathic fevers," which are caused chiefly by contagion, marsh or other effluvia, excesses of temperature, atmospheric vicissitudes, or epidemic agency. Now the main argument in support of the doctrine is expressed in a few sentences, which we fear would hardly convince the merest tyro in medicine.

Moreover, what proof have we that *malaria*, or "atmospheric impregnations" only get into the system by "being entangled in the saliva and swallowed?" What prevents their introduction through the lungs or the skin? If fever is the result merely of sympathy, we prefer to believe that the first impression is made upon the nerves supplying the respiratory passages by the contact of morbid matters inhaled, and not upon the nerves of the stomach, of which there is no proof, and which seem to be out of the reach of atmospheric impregnations! Why rather may not *the blood* become early contaminated, by these emanations floating in the respired air, passing into the blood, along with those constituents of the atmosphere which partially enter it, and thus produce a disease of the whole frame, by vitiating the vital fluid? We know that Dr. Chapman was early committed against humoralism, and on the side of solidism; but certain facts have been disclosed by modern research and investigation, which can be neither denied nor explained away, and which ought to lead to a reconsideration of this subject of fevers, and a remodelling perhaps of theories and doctrines. Every practising physician must have observed that there are certain diseases, called fevers, in which there seems to be a general change, or succession of changes, common to all the organs, and nearly all the textures of the body, which are plainly distinguished from all *partial* changes and their effects. Cases of fever are not unusual, where we discover no evidence of inflammation or congestion in any part of the body. All the phenomena of fever are different from those of local affections—the circulation, the state of the secretions, the nervous system, the blood, all show a disease of a general nature, affecting every organ and every function; leaving often, it is true, morbid appearances in different parts, owing to accidental complications, which are, however, the effects, not causes of the general malady.

We are surprised to find Professor Chapman still reiterating, at this late day, the exploded doctrine that "no unnatural substance enters the blood in a healthy state, unless by injection," a doctrine, we venture to say, that is not held by a single physiologist living, deserving the name. We do not feel called upon to refute such a statement, it has been done again and again; the advocacy of it either implies an unwillingness to receive demonstrated truths, or a strength of prejudice which leads astray and blinds the judgment.

We are told that "Louis located the origin of fever in the glands of Peyer and Brunner;" had Dr. C. used the term *typhoid*, the statement would have been correct. It is also stated that Dr. C.'s views of the pathology of fever were not borrowed from Broussais, as "they were announced long anterior to any of Broussais's writings." This looks like an attempt to claim for them the merit of originality, to which they are by no means entitled. The remarks on the treatment of this class of diseases, skeleton-like as they are, will be found judicious as far as they go, but altogether useless as a guide to the practitioner, as they do not point out the various circumstances by which the *modus medendi* is to be governed.

Under "Intermittent Fever," we are told that "marsh miasmata," to which this class of fevers owes its origin, "*proceed from soils, particu-*

larly the argillaceous, and not from the decomposition of organic matter!" and we are referred to Dr. C.'s treatise on "Epidemics," for the proof.

It is some time since we read this treatise, but, if our recollection serves, we sought in vain for anything in the shape of *proof* for the doctrine in question. If there is any one fact that may be regarded as established, connected with the causation of disease, it is, that intermittent and remittent fevers owe their origin to a principle developed by the decomposition of vegetable matter. To deny this, because we cannot as yet detect this principle by chemical analysis, is in the highest degree irrational and preposterous. It will not always do in medical reasoning to adopt the maxim, "*de non apparentibus et non existentibus eadem est ratio.*" The cause of the intermittent character of these diseases is not made entirely clear on the professor's hypothesis of their local gastric origin. It is very plausible to assert that the paroxysm comes to an end in consequence of the excitability of the system being exhausted, and that when this is recruited the paroxysm is renewed; but then the question recurs, why are not all diseases periodical? Dr. Chapman is also somewhat behind the age in his notions as to the proper treatment of intermittents. We are told that cures effected by *quinine*, though rapid, are not the most radical; that bad effects follow its exorbitant use; that the best mode of administering it, is to give *one grain* every hour during the *apyrexia*. This will do in mild cases of fever and ague; but late experience has abundantly proved that this is not the best way to treat severe and aggravated forms of the disease. Here it is large doses, five, ten, twenty, and even, in some cases, thirty grains, that best arrest the complaint, and effect the speediest and most "radical" cures. Dr. C. thinks that *arsenic and sulphate of copper* are superior to quinine in chronic cases, and also as respects completeness and permanency of cure. To prevent a paroxysm of the pernicious congestive intermittent, we are told that "the most efficacious appliance" is a blister to the epigastrium, so as to be fully drawing at the time of the expected accession,—a practice which we know to be wholly inert, and worse than useless. The personal experience of Dr. Bell on this point perfectly coincides with our own. (See *Bell and Stokes's Lectures: Intermittents.*)

On the treatment of "Remittent Fevers," Dr. C. is judicious and discriminating. *Bleeding*, as in nearly all other diseases, is his first and most important remedy; mercury is recommended as a purge at first, and afterwards as an alterative in small doses. He thinks the mercurial impression cannot be produced in the height of the fever, and that when it has subsided it is not needed: the mercurial action being the *effect* and not the *cause* of the improvement. As to the supposed properties of mercury as a *regulator* of the hepatic function, checking the secretion of bile when too copious, and increasing it when too scanty, we are yet to be convinced. It would, we confess, be very desirable to have this power of blowing hot and cold at the same time, stimulating and not stimulating by the same agent, and in the same doses, but we suspect that this property is yet to be proved in relation to this agent at least. Much credit is doubtless due to Professor Chapman for pointing out the abuses of mercury, and cautioning the profession against its extravagant and pernicious uses.

Under "Continued Fevers" we are told that some of them arise from "Marsh Miasmata," that all of them are disposed to observe some one of the various primitive intermittent types—that the most common of them are the congestive forms of the common autumnal remittent. "The old and familiar title of such fevers," says Prof. C., "is *Typhus.*" This appears to us, confounding diseases which are really distinct, and introducing confusion where order and system are very desirable. If *Typhus* is to be treated of under continued fevers where it may very properly be placed, it should be considered as a peculiar and distinct form of disease; and not regarded as a fever produced by marsh miasm, which it never is. Dr. C. would seem to have adopted the strange doctrine advocated by Armstrong, in the latter part of his life, viz., that typhus arises from malaria, is essentially the same disease as intermittents and remittents, and differs from them only in type. Dr. Hosack also runs into the same error. Speaking of the remittent fever that prevailed at Kingston (Ulster County, N. Y.), Dr. H. remarks (Lectures, &c., p. 302), "The *Typhus* fever, as it appeared at the Wallkill, commenced as an Intermittent, then became Remittent, and at length ended in *Typhus.* The same thing has been frequently observed of the Lake fevers. They commence, for the most part, in an intermittent form, but by their duration they become remittents, and at length terminate in Typhus." Now, the true *typhus* fever not only differs from the common inflammatory (continued) remittent fevers in its phenomena, but also in the causes whence it has its origin. It is marked by stupor, delirium or typhomania, and often by a peculiar cutaneous eruption, from an early period of the attack, as well as by the determinate course and regular succession of all the febrile changes, and then it originates always, we believe, from an animal miasm, generated either by a number of persons confined in a close air, or by the disease itself. The air is thus contaminated, and infects the frame through the respiratory organs, either directly or indirectly, by means of substances capable of retaining it for a time and giving it out on exposure to the air. For a good description of true typhus the reader is referred to Copland's "Medical Dictionary," or to Bartlett "On Fevers;" he may also consult another part of our Journal (p. 353) for some remarks on the same subject. Dr. Chapman, in his description of typhus, has blended the symptoms of our autumnal remittent, as well as those of common inflammatory fevers, with those of true typhus, and we have consequently a picture neither distinct in its outlines, nor true to nature. Dr. C. is not satisfied that *true typhus* ever rises from *contagion;* meaning by the term "*a virus secreted by the capillaries* and capable of reproducing the disease." He, however, admits that the cause, whatever it is, is often carried by *fomites*, which, he says, may be retained in clothes, &c., for a long time, and thus give rise to the disease, the incubative period being from eight to ten days. Now, then, why should Dr. C. doubt that this virus is an *animal secretion?* What else can it be? are we to suppose, because it may be generated primarily, in close, crowded quarters, that therefore it is not the result of animal secretion, and that it is incommunicable? The small-pox furnishes us an example of a virus, the product of animal secretion, being carried by fomites, and yet highly contagious, and so it may be in typhus.

Dr. C. attributes typhus fever also to a want of oxygen or excess of carbonic acid, as in crowded assemblies; to penurious diet, miasmata, extreme heat or cold, to inadequate evacuations, or a too early resort to stimulants in other fevers. Of course our *diagnosis* is to be governed by the *nature of the cause;* the symptoms varying, we are told, as the disease is caused by *contagion*, or *malaria, heat, cold, penurious diet, &c.* Here again is confusion worse confounded.

Under "Autopsic Appearances," we read that "according to the observations of Louis, Chomel, and Cruveilhier, ulcerations of the glands of Peyer and Brunner, with lesions of the spleen, constitute the most uniform pathological characteristics of this fever, so that it has received the name of *dothinenteritis*." We thought that it was of the "*Typhoid*" fever, that these pathological changes were characteristic. Such a disease (which we regard as one species of true typhus) is now admitted by our best pathologists, and we are surprised to find so little allusion to the subject in the Lectures of Dr. Chapman. Under the head of "Malignant Typhus," we find mention, indeed, made of *Typhoid Fever*, and we are told that the notion of there being a fever "of a distinct nature, originating in, and kept up by a particular lesion, is preposterous in itself and as yet gratuitous"—we are not aware that this is the doctrine now held in relation to typhoid fever. No one supposes that the disease *originates* in this lesion, any more than that *small-pox* originates in the pustular eruption, or scarlatina in the florid efflorescence, but it is believed that this lesion is a pretty uniform attendant, bearing to the disease the same relation as the cutaneous phenomena, in the above diseases, to the diseases themselves; moreover, we have cases of scarlet fever, and of measles, without any eruption. Dr. Chapman expresses his doubts whether chlorine fumigations have any disinfecting properties, and thinks them inapplicable from the oppression they cause the patient. We believe it is now very well established, that chlorine has the property of destroying the principle of contagion or infection, and the success with which it is employed for this purpose fully warrants such a belief.

Yellow Fever is the next disease treated of by Professor Chapman. We are presented with a brief but accurate sketch of the symptoms of this malady, drawn apparently from nature. With respect to its causes, Dr. C. thinks that it is of domestic origin, but that it may be generated from the materials which are contained in the holds of ships, and that it is never carried by *fomites*. Dr. C. also believes that the distempered atmosphere of a port at which the yellow fever is raging may be confined in the hold of a vessel which is hermetically sealed, until the hatches are opened in another port, and that during this time the crew will not be subject to the disease, though they may acquire it at the opening of the hatches; also, that when the miasm is generated from a putrefying cargo, the crew may be exempt until the hold is opened. But the great source of yellow fever, in the opinion of Dr. Chapman, is the putrefaction of domestic filth in certain positions, as in Philadelphia, Baltimore, and New York, in 1805. He supposes that the generation of the miasm is dependent on a certain unknown constitution of the atmosphere, and that it is therefore probable that exhalations from filth, local or imported, will be productive of this fever under *all circumstances;* he, however, thinks that its tendency to spread is enhanced by high temperature steadily preserved. Dr. Chapman, notwithstanding the overwhelming evidence to the contrary which has accumulated during the last few years, still adheres to the opinion originally asserted by him, that the miasm of yellow fever is never generated at any great distance from water, and, in short, that this is an element always necessary to its introduction. We shall not combat this opinion, which, so far as we know, is peculiar to Dr. Chapman, but pass on to his remarks in relation to its contagiousness.

By contagion Prof. C. understands, "a virus generated in one individual, through vitiated vascular action, capable of communicating the disease to a second, and so to multiply it indefinitely." In opposition to this, among other things, Dr. C. states that the yellow fever is sometimes an epidemic in its nature, causes, and effects; that it never spreads when the patient is removed from the infected districts—that it is invariably suppressed on the appearance of cold weather—that, unlike contagious diseases, it simultaneously appears in remotely separated positions—that nine-tenths of the profession are in favor of its non-contagious character, &c. The late Dr. Hosack, as is well known, considered the disease as contingently contagious—that an infectious miasm is generated by the sick, which is a primary agent in the propagation of the disease,—but that it requires some peculiar conditions of the atmosphere, as vicissitudes in the electrical conditions, or the presence of certain miasms, to render this cause sufficiently intense and operative, as to give the disease the character of an epidemic.

We have not space to pass in review the different topics treated of in this work, and must therefore bring our remarks to a close. We can recommend it, however, as a very life-like skeleton—a faithful analysis of Dr. Chapman's discourses, in which the heads are clearly laid down—the thoughts tersely expressed—the general principles properly emphasized—the *lucidus ordo* duly studied, and accuracy carefully exhibited—but which gives no more correct idea of the erudite, elaborate, and highly-finished lectures of the learned professor, than a single brick or piece of mortar would of the Capitol at Washington.

Art. XII.—*Pulmonary Consumption, successfully treated with Naphtha.* By John Hastings, M.D., Senior Physician to the Blenheim Street Free Dispensary. London: John Churchill 8vo., pp. 120.*

The following sentences conclude the work before us:

> "Single-handed, if I may be allowed the use of the expression, it (Naphtha) has cured Pulmonary Consumption in almost every case in which it has hitherto been used, when the disease has been treated in an early stage. And from what I have more recently observed, although I do not consider myself justified at present to publish it, I am most sanguine that, even in the later days of the disease, a restoration of health may generally be calculated upon."—P. 120.

Thus introduced as a remedy of no ordinary value, in the treatment of a disease uniformly fatal, it is not strange that naphtha was received with great favor at first in Europe, and subsequently in this country. Nearly two years have passed since medical attention was first directed to it:—ample time for its virtues to have been tested. Has it "single handed," or in conjunction with other remedies, "cured consumption in almost every case?" Have the results predicted for it been realized? Is it to be relied on in the treatment of consumption? Let us examine Dr. Hastings' argument, and then his evidence.

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* Since this review was written, we learn that a second edition of this book has been published in London, which has not yet reached us The pages referred to are those of the first edition.

Those who have read the passages first quoted above, and the following ones, will be justified in supposing that Dr. Hastings believes in the curability of consumption:

> "From the very first moment I employed Naphtha in Pulmonary Consumption, up to the present time, it has been so successful in my hands, that I have no doubt it will be found little less than a specific in the earlier stages of the disease. This can scarcely be saying too much, when, in the more advanced stages, where some destruction of the lungs has ensued, recovery has most unquestionably been effected."—P. 8.

But these opinions of curability do not coincide with the one expressed on page 5:

> "For my own part, it appears inconsistent with probability that tuberculous abscess of the lung has ever been cured: for, if it had, how is it that recoveries do not take place upon a repetition of the attested successful treatment?"

Does Dr. Hastings here mean that tuberculous abscess has never been cured, except by Naphtha; or does he not consider that abscesses are included "in the latter stages of the disease," where "a restoration to health may generally be calculated upon?"

The first chapter of the work is on the causes of consumption, and commences thus:

> "Whether tubercle be due to an unhealthy condition of the nutritive process, tending to the production of such a morbid condition of the blood, as to dispose the organism to generate pulmonary consumption in preference to any other disease, is an opinion, which, if admitted, is of so vague and indefinite a character, that it throws little or no light on the obscurity of the subject."

It is of the highest importance in the treatment of diseases, that we should have some well-defined ideas as to their true cause: for, in proportion as we understand their cause, so we will be enabled to select and employ our remedies. Unfortunately the pathology of consumption is as yet but little understood, and in this fact we may find one reason why its treatment has been in general so unsatisfactory.

It is of little real practical value whether Dr. Bennet or Dr. Hastings first discovered the cryptogamic plant in the expectoration of persons affected with tubercles, or whether the globules in such cases are round or spherical,—or whether "further investigation may prove, that the last change effected in tubercles, before being expelled from the lungs, is a return to that normal structure from whence they derived their existence —which will be not only a curious, but highly interesting fact."—P. 46.

Curious enough though these matters may be, they assist us but little in the treatment. It is not, however, a matter equally unimportant whether we believe tubercle to be the result of inflammation, or whether it is in no way dependent on it; whether, according to Dr. Symonds, tuberculous deposit "takes place by a mechanism as simple as that of serous and fibrinous secretion, but implies an alteration in the blood itself," or whether we believe with Dr. Gross, that tubercle is the result of a modified or perverted secretion, attended or preceded by active sanguineous congestion;" whether tubercle be due to an unhealthy condition of the nutritive process, or whether, according to Dr. Evans, tubercle be a disease depending upon "deficient force of growth."

In the work before us, all these theories are thrust aside, and we have substituted the following one, which is given in Dr. Hastings' own words:

> "I was led to the conclusion from a careful survey of the chemical analysis of tubercle made by Thenard, and the only analysis of this morbid product in a crude state that I am aware has been made, that it (the ordinary method of treating consumption) was defective, inasmuch as the composition of the animal matter, which, it will be observed, amounted to upwards of ninety-eight parts out of a hundred, had not been investigated.

Animal matter	98.15
Muriate of soda	1.85
Phosphate of lime	
Carbonate of lime	
Oxide of iron, a trace of	

> "From the greasy nature of tubercle in its crude state, there did not exist the slightest doubt in my mind, that carbon entered largely into its formation, and that its composition had a striking resemblance to fatty matter. * * * * It may be readily conceived that the morbid action which had for its end the formation and maintenance of tubercles in the lungs, would in a great measure lose its influence over them, when they became softened, and more or less separated from the living tissues with which they were formerly in close connexion. For among the changes in the earlier stages of consumption none is more remarkable than the disappearance of fat, and as the disease advances, all the tissues of the body become more or less attenuated, the muscles of involuntary motion excepted, which it is alleged do not obey this destructive process. There is however a want of facts relative to this point to thoroughly decide the question. In consequence of the loss of fat, I determined to employ those compound agents rich in carbon and hydrogen, which had not been previously used in medicine: not with the idea that they would make up the deficiency, which the system had sustained in the progress of the disease, but that such a change would by that means be introduced into the constitution as would act upon the forces of the organism at the point of departure from health, whether that took place in the stomach, blood or elsewhere:—that change tending to such an affinity in the elements within the body, that the carbon, hydrogen, oxygen, and nitrogen, instead of assisting in the formation of products which threaten life, would tend to develope those materials only, which are required for the perpetuation of health, and the prolongation of existence. Naphtha, from its chemical composition and unknown properties as a remedial agent, appeared to me the most likely to stop the ruthless progress, which consumption has effected, and is still effecting on man."—Pp. 45, 47.

This theory, which certainly has the merit of being new and very obscure, may be summed up as follows:—That tubercle being from analysis, rich in fatty matter, consumes the fatty matter from all parts of the system, to which circumstance is owing the emaciation, in consumption: therefore "those compound agents, rich in carbon and hydrogen," must be employed to make up the deficiency, where the disease has already progressed, or in its incipient stage, to act upon the "forces of the organism" in such a manner as "would tend to develope those materials only which are required for the perpetuation of health, and the prolongation of existence;"—certainly a very desirable point, but requiring, we fear, a nicer discrimination than the naphtha possesses.

This is not the place to discuss at length the nature of tubercle, even did we feel so disposed, and having done full justice to Dr. Hastings's opinion on this subject, by giving his theory in his own words, we are content to let our readers judge of its merits, though we freely confess, we do not fully comprehend it.

We pass at once to the consideration of the naphtha treatment. In the employment of this remedy, it is of the utmost importance that it should be the pure *pyro-acetic spirit*. Dr. Hastings' test was "its colorless and transparent character, and agreeable ethereal alcoholic odor, its specific gravity which was 0.823 to 0.824: its increase of temperature consequent upon mixture with water; its preservation of appearance on the addition of nitric acid, and its taste being warm, without the least sensation of burning."—P. 50.

The impure naphtha produces a burning sensation in the throat, nausea, and in some instances sickness, headache, palpitation, and fainting. The naphtha is administered internally in doses of 15 drops, three times a day, gradually increased to 40 or even 50 drops. It has also been used by inhalation, and the experiments which led to its employment in this form, are so conclusive (?) that we cannot forbear quoting them:—

> 1st. "A little naphtha having been put into a bent tube, resembling the capital U, some expectorated matter was poured upon it, which had been determined, with the microscope, to be rich in globules of tubercle. Gentle heat was then applied, and the naphtha driven off, when the super-imposed secretion presented a mere shapeless mass of animal matter, the globules having entirely disappeared.
>
> 2d. "Some tuberculous secretion, highly charged with globules of tubercle, was placed under the field of the microscope, and a drop of the naphtha added, when an immediate disappearance of the globules ensued, leaving behind a mass of the same character as in the former case. The frequent repetition of this experiment invariably led to the same result.
>
> 3d. "Some tuberculous secretion of the lungs was put into a portion of the intestine of a child, and placed over a wide-mouthed bottle, which contained a small quantity of naphtha, between which and the intestine a clear space of three inches remained. A spirit lamp was then placed under the bottle, and a very gentle heat applied until slight ebullition took place, which was continued for an hour. The contents, when removed from the intestine, and examined with the microscope, presented the same appearance as described in the previous experiments."—Pp. 52, 53.

It is, perhaps, fortunate, that a portion of these same "globules rich in tubercle" was not at the same time subjected to the action of the nitric or sulphuric acids, or a solution of the nitrate of silver, or a portion of the intestine filled with tuberculous secretion, exposed to the fumes of sulphur or chlorine, for there might have resulted another "shapeless mass of animal matter, the globules having entirely disappeared," and therefore, these mild chemicals proposed as "little less than a specific" for consumption.

Thus much for Dr. Hastings's argument; let us now look a moment at his evidence, which is by far the more important part. This consists of thirty-seven "cases of pulmonary consumption," in all of which was the naphtha used, and all terminated favorably; and that too in many instances, under very unfavorable circumstances; the patients, for the most part, being out-door Dispensary patients, living on bad food, and deprived of good air and suitable clothing. There is no mention made of any failures.

We have no wish to deny to Dr. Hastings the ability to make correct diagnosis, but we have the right in the cases before us, some of which are quite lengthily drawn up, to complain of the poverty of accurate information with regard to many of the symptoms which characterize a tuberculous condition. The account of the physical signs, those signs so important in the early stages of consumption, is most meager and unsatisfactory. Indeed, the account of these symptoms seems to have been taken in that random, careless manner, so common in large Dispensaries. "Slight dulness" on one or both sides, in the region of the clavicles, and "harsh respiration," or "an almost entire absence of the respiratory murmur," constitute, in almost every case, the full report of the physical signs. In six of the thirty-seven cases, mention is made of the "dry crackling *râle*," but we have yet to learn that this *râle* depends upon a tuberculous condition. In but one of the cases is any mention made of auscultation of the voice or cough. Neither is there any account of the nature or quantity of the expectoration.

But let us give, in a condensed form, the first two of these cases, all that we have room for, that the reader may judge for himself: they are a good specimen of all the others, and nothing is omitted that is important.

Case I.—"C. T., ætat. 18, applied in November: mother and brother died of consumption. For several years has suffered from cough and difficulty of breathing, especially on going up stairs. Has cough, expectoration and some emaciation. Percussion dull on the right side, and respiratory murmur absent in places. On the left side percussion a little dull, respiratory murmurs rough and jerking. Was put upon the naphtha treatment internally and by inhalation, and in April (seven months), the cough and the breathing had entirely disappeared, and he had gained both flesh and strength, and although there was still slight expectoration, the sounds of the chest were almost natural."

Was this a case of tubercles? Would it not more readily pass for a case of chronic bronchitis, chronic emphysema, or dilated bronchi? And was it cured?

Case II.—"Ann S., unmarried, ætat. 24: lost father, mother, and one brother, from consumption; admitted 29th January. For the last three or four winters had suffered from cough, and repeated attacks of inflammation of the bowels; cough severe; palpitation and emaciation; pulse eighty; bowels irregular, and pain at the pit of the stomach after eating. Percussion yielded a duller sound over the right anterior superior region than over the left; the respiratory murmur over the right clavicular region was nearly inaudible, and when distinguished it was both feeble and harsh. Over the same region, on the other side, it was puerile." She was put on the naphtha treatment, as in the previous case, with some aperient pills, "to correct the state of the bowels." "On the sixtieth day the cough and expectoration had almost entirely disappeared; the palpitation was sometimes troublesome, but she had gained both flesh and strength, and natural sounds were the result of percussion and auscultation. For the purpose of relieving the palpitation, she was directed to take two grains of the hydriodate of potash, with each dose of the naphtha.

On the 6th May, being the hundredth day of her placing herself under my care, she had neither cough, expectoration, nor difficulty of breathing, and considering herself well, ceased to visit me."

Does this read like a case of tuberculous consumption? Do not rather the pain after eating, the irregularity of the bowels and appetite, and the disposition to inflammation, denote a gastric or intestinal affection (chronic gastro-enteritis, we should say) with the cough as sympathetic, than a disease of the lungs? Have we not a right to expect, in a case of consumption with a cough of "three or four winters'" standing, a greater departure from health in the physical signs, than those just detailed? The case was certainly well treated, but we cannot think it was one of consumption. The laxative pills and hyd. potassæ were well calculated to improve the condition of the digestive organs, and when these recovered their healthful condition, and spring came, for it was May when the patient was discharged, we are led to suppose that the cough had hitherto only existed in winter. The cough and expectoration ceased.

In the twenty-third case, there was a cavernous *râle* over a small space, with perfect pectoriloquy. The cough and expectoration had existed for several years, and latterly had become worse. On the thirty-fourth day of the naphtha treatment, "percussion yielded a much clearer sound, and the respiratory murmur was improved. The cavernous *râle* was less distinct, and the pectoriloquy could not be detected." The respiratory murmur natural on the opposite side.

We look upon this case as the most successful one of the whole number, and we are sorry we have not information as to its result.

We have no wish to deny that the naphtha is a remedy of some, nay, of much value. Dr. Braithwaite thinks that its virtues in the treatment of pulmonary affections depend upon its expectorant properties; Dr. Bennet (Editor of the Medical and Surgical Journal, April, 1845, p. 406) believes that its good effects are due to its power of allaying the irritability of the stomach, and thus enabling the patient to take food. If it possesses either or both these properties let us add it with pleasure to our list of valuable remedies; but let us not, in the treatment of a disease so unyielding as consumption, rely for success upon a remedy of so little power. Whatever be the true pathology of tubercles, we are well convinced that the remedy which opposes successfully their development, must be a constitutional one; such an one we do not believe the naphtha to be.

One word in conclusion, upon our own experience with this remedy. We have used it faithfully, in perhaps a dozen cases; in chronic bronchitis and dyspepsia, we have found it of some service; but even here the improvement was most often only temporary; but neither in the early or later stages of consumption have we found it to produce any effect whatever.

H. V.

Art. XIII.—*An Essay on the Use of Narcotics, and other Remedial Agents calculated to produce Sleep, in the Treatment of Insanity.* For which the Author obtained the Lord Chancellor's Prize in Ireland, awarded by the President and Fellows of King and Queen's College of Physicians. By Joseph Williams, M.D. London: John Churchill, 1845. Pp. 120.

Although the ostensible object of this work is simply the discussion of the effects of soporific remedies, yet, as a whole, it is one of the most valuable practical works upon the therapeutics of Insanity which has hitherto been published. It is especially valuable to the physicians of the United States, inasmuch as it is the most accurate exponent of the treatment of mental disorders pursued in the asylums of this country.

Bleeding "is occasionally, though rarely indicated," "all modern authorities condemn its employment, except under peculiar circumstances." "We must never be deceived by mere vascular excitement, but when it is considered necessary to take away blood, and yet the powers of the patient would not justify general bleeding, cupping or leeches may be resorted to." "*Irritation* is confounded with *inflammation.* The maxims so ably taught by Mr. Travers are forgotten; the object being to *calm the action, not to diminish from the power.*" "If bleeding be indicated, it is almost invariably in the early stage."

Purgatives are recommended to subdue vascular action, when the propriety of bleeding is doubtful. The state of the bowels should always be observed, and "purgatives are useful in both the acute and chronic diseases." The particular purgative used must be governed by the symptoms.

Emetics are useful in some cases of vigilantia, and "the continued action of tartar-emetic cannot be too much lauded in some incipient cases of mania." Emetics should be avoided in paralytics, and in all cases where there is too great a tendency of blood to the brain. ("When antimony is given, in cases of vigilantia, merely for the purpose of subduing excitement and procuring sleep, I give it in repeated doses, sufficient to cause continued nausea, without producing emesis."—P. E.)

Opium, if its sedative effect be desired, should be given in full doses, and repeated; "less than one grain will seldom be useful." It "is contra-indicated where there is great heat of the skin, with extreme restlessness and determination of blood to the head;" also "where the system is plethoric, unless depletion or purgation, or both, have preceded it." In debilitated constitutions, in cases of high nervous excitability, and in puerperal mania, opium is particularly useful.

Morphia is preferred to opium, where the latter produces those unpleasant effects sometimes following its use. "The hydrochlorate (of morphia) is the most valuable remedy we possess for calming excitement." (The sulphate is generally employed in the United States."—P. E.)

"*Digitalis* is a decided narcotic." "When there is considerable arterial action, with vigilantia, after having well purged, digitalis will very often reduce the power and frequency of the pulse, and sleep follows." "If excitement be excessive, and this arise from acute inflammation, tartarised antimony must precede it." The tincture is preferred; "about ten minims every six hours, is an average dose to commence with in maniacal cases."

Hyosciamus, in cases of high nervous irritability, and in those where opium is contra-indicated, is very useful. The author thinks that, like digitalis, it "accumulates in the system," and hence should be employed with caution. "Opium, in combination with hyosciamus, is often rendered much milder and more uniform in its action. With camphor, henbane is very useful in producing sleep, and tranquillizing the irritability of the insane." "Several fatal cases have occurred from exhibiting henbane as an enema."

Conium "is not at present much used *as a hypnotic;* it will, undoubtedly, sometimes calm nervous irritability, but does not seem to possess the tranquillizing powers of hyosciamus." ("In the asylums of the United States, conium is probably used much more extensively than hyosciamus. I give it frequently and in large doses, and generally in combination with the carbonate of iron. It is chiefly valuable as a deobstruent and alterative."—P. E.)

Camphor, "given in small doses, acts only as a stimulant. From ten to fifteen or twenty grains must be given to produce its sedative effect. It may be necessary to combine it with opium, hyosciamus, digitalis, &c. (chiefly used in this country in combination."—P E.).

Belladonna, hydrocyanic acid, colchicum, stramonium, and aconite are mentioned, and the stimulant nervines.

Warm baths. "There are many cases of insanity where there is want of sleep, in which it would be perfectly useless to prescribe narcotics, but very good effects constantly follow the judicious use of warm and tepid baths;" "96° Fahrenheit may be usually considered as the best temperature for a warm bath for the insane."

"The semi-cupium and pediluvium are both very useful in counteracting determination of blood to the head."

The ice-cap is preferred to the douche, for cooling the head.

The cold bath, and the cold shower bath are thought to be useful in some cases.

"If cold be applied to reduce superfluous heat, sponging the body with cold water is most effectual."

There are many cases of insanity accompanied by cerebral inflammation, or excessive vascular action, that would contra-indicate the use of opium or one of its preparations. Yet if these remedies be employed, the secretions are checked, particularly those of the mucous follicles of the alimentary canal; the fauces, mouth and tongue become perfectly dry, and the latter covered with dark sordes, as in typhoid fever. It is hardly necessary to remark that when these effects are perceived, the opiate should be suspended, and the secreting vessels restored to their normal action by the use of small doses of calomel, or the blue mass. After this is done, the narcotic may be exhibited with safety and advantage.

P. E.

Art. XIV.—*On the Theory and Practice of Midwifery.* By Fleetwood Churchill, M.D., M.R.I.A. With notes and additions, by Robert M. Huston, M.D., Professor of Materia Medica, and General Therapeutics, and formerly of Obstetrics and Diseases of Women and Children, in the Jefferson Medical College of Philadelphia, &c. Second American Edition, with 128 Illustrations. Philadelphia, Lea and Blanchard, 1846, 8vo., pp. 525.

In this age of books, when much is written in every department of the Science of Medicine, it is a matter of small moment to the student, which of the many he shall choose for his study in pupilage, and guide in practice. In no department is the choice more difficult than in that of Midwifery; many excellent and truly valuable treatises in this department of medicine have, within a few years past, been written; of this character are those of Dewees, Velpeau, Meigs, and Rigby. With due respect to the authors of the works just cited, we are compelled to admit, that to Mr. Churchill has been reserved the honor of presenting to the profession, one, more particularly adapted to the wants and use of students—a work rich in statistics—clear in practice—and free in style, possessing no small claims to our confidence.

The object of this work is to present to the student and young practitioner, the more "modern discoveries in the physiology of the uterine system, with all the recent improvements in practice, in a condensed form." This the author has accomplished in a happy manner. The notes by the American editor, upon the physiology of the uterine system, render this portion of the work complete. We shall not be able, for want of room, to go into a full review of the work before us; but there are some portions which we cannot refrain from noticing.

That portion of chapter fourth, treating of "Variations from ordinary Convalescence," is of *great* practical value to the young practitioner, and deserves his most serious attention (it is alone worth the price of a dozen copies)—which every reader must acknowledge, who has seen much of the perplexity and doubt that arise in the treatment of such cases.

The note of the editor under this head deserves to be committed to memory, and not only committed but remembered at the side of the patient; or the realization of the "worst anticipations" may be the result.

The chapter on the "Induction of Premature Labor" is made up of statistics, being the most complete of anything we have seen on this subject. It is this kind of information which must guide the practitioner in his decision and prognosis. On the use of the forceps, our author has shown great research, and the statistics presented here tend in a great measure to set this subject in its proper light.

Much difference of opinion prevails as to the period of their application.

Not long since, a public teacher gave this broad rule, viz:—"When the scalp of the child is corrugated, the vagina hot and dry, the forceps are strongly indicated, and no time should be lost in resorting to their use—no matter how long or short a time may have intervened." The impropriety of such a course is obvious, and wants no comment. There is no rule which will not have an exception,—but those laid down by our author accord fully with the most safe and practical plan—drawn as they are from the best of all sources,—the condition of the patients and the result of statistics.

On retention of the placenta the author has made some valuable observations. The rules laid down may well be considered as giving the best exposition of the treatment to be pursued in such cases;—cases to the advanced practitioner of no small moment, and to the young of perplexity and doubt.

The chapter on "Puerperal Fever," like the foregoing, is full of statistics, and at a glance sets forth the views entertained by all the celebrated writers up to the present period. To the advanced practitioner it will be found full of interest, and as setting forth the views of authors as to its pathology, invaluable. The young practitioner will find in it the cream of what before he would have been obliged to search volumes to obtain.

We regret the want of sufficient room for a full synopsis of this chapter, but our limits compel us to close; we cannot, however, but acknowledge the satisfaction we have felt in the perusal of this work, and sincerely wish for it a wide circulation—feeling the full conviction of this truth, that books of such a character are rare, and deserve a place in the library of every member of the profession.

S. S. P.

Art. XV.—*The Practice of Surgery.* By James Miller, Jr., R.S.E., Prof. of Surgery in the University of Edinburgh, etc. Phil., Lea & Blanchard. 8vo., pp. 496 : 1846.

We lately had occasion to notice the very able work of Prof. Miller, entitled "Principles of Surgery," and now we are presented with another equally interesting volume exhibiting the application of these principles to the details of injury and disease. Both together form a very useful and complete Text-Book of Surgery. The work, moreover, is unedited, and will thus gratify the taste of those readers who have no delight in those medico-literary plastic operations, for which, we are told, Americans are somewhat celebrated. The work is got up in the usual elegant style of the publishing house whence it emanates, and will commend itself to both students and practitioners as containing a very satisfactory resumé of the resources of the Surgical Art at the present day.

Art. XVI.—*Elements of Materia Medica and Therapeutics.* By Edward Ballard, M.D., London, and A. B. Garrod, M.D. With additions and alterations. By R. E. Griffith, M.D. Phil: Hogan & Thompson, 8vo. pp. 516, 1846.

This is a respectable compilation, strictly elementary in its character; being confined to the most important facts connected with the physical properties, preparation, chemical composition, chemical relations, operation, and uses of the different articles of the Materia Medica. The general principles of Therapeutics, with those of Chemistry and Natural History, in their application to Materia Medica, have been included in separate introductions, in order to avoid repetition and to exhibit a connected idea of each. The editor, Dr. Griffith, in introducing the work to the profession of this country, speaks of the want of a Compendious Treatise on the Materia Medica to serve as a text-book for students, and at the same time remarks that the present publication "contains a larger mass of information condensed in a smaller compass, than any work in the English language." Now, we are inclined to doubt whether either of these positions can be maintained. Certainly, the "Conspectus of Thompson" is more compendious, and contains in a much smaller compass an equal amount of matter; and the same, perhaps, is true of Bell's Dictionary of Materia Medica. We do not see the necessity of a table of "Contents" of thirty-six pages, while there is a copious Index besides. The work would be much improved if this part were omitted, and the uses of medicines dwelt on at greater length. An account of the mineral waters of the United States would also be a useful addition. The additions of the editor are, however, extensive and judicious; and altogether the work is calculated to be a useful one as a text-book for students.

Art. XVII.—*Monograph on Strabismus, with Cuts.* By Frank H. Hamilton, Professor of Surgery in Geneva Medical College: Buffalo, 1845. 12mo. pp. 69.

This is a highly meritorious little manual, and comprises, in small space, all that is actually known on the subject of Strabismus. The author is one of those straight-forward writers and talkers who go directly to the point, instead of making gyrations round it ad infinitum. Hence, the very small compass into which he has compressed so much important matter. We can safely recommend this manual as a safe and useful guide in everything relating to strabismus, including etiology, pathology, anatomy, ordinary treatment, and surgical operation. It derives no small part of its value from the large number of illustrative cases which are scattered through its pages. We hope it will be widely circulated.

Art. XVIII.—*Lectures on the Nature and Treatment of Deformities, &c.* By R. W. Tamplin, F.R. C.S.E. With numerous illustrations. Philadelphia: Barrington & Haswell, 1846, 8vo. pp. 216.

These lectures were originally published in the London Medical Gazette, and were universally received with much favor. Deformities of the foot and the knee-joint are treated of at length; the causes and treatment being pointed out with great minuteness and judgment. Distortions of the spine, wry-neck, contraction of the lower jaw, of the shoulder-joint, arm, fore-arm, wrist and fingers, &c., all pass under review, thus forming a complete Manual on the subject of Deformities. The work scarcely admits of analysis; we can therefore only recommend it as one of the most useful of the kind hitherto published.

Art. XIX.—*A Clinical Introduction to the Practice of Auscultation and other modes of Physical Diagnosis, intended to simplify the study of the Diseases of the Lungs and Heart.* By H. M. Hughes, M.D., etc. Philadelphia: Lea & Blanchard. 12mo., pp. 270.

The Diagnosis, Pathology, and Treatment of the Diseases of the Chest. By W. W. Gerhard, M.D., Lecturer on Clinical Medicine to the University of Pennsylvania, etc. 2d Edition, Revised and Enlarged. Philadelphia: Barrington & Haswell. 8vo., pp. 288. 1846.

The Young Stethoscopist, or the Student's Aid to Auscultation. By H. J. Bowditch, M.D. New York: J. & H. G. Langley. Boston: Wm. D. Ticknor & Co. 1846. 12mo., pp. 278.

Among the successful cultivators of Physical Diagnosis in this country, Dr. Gerhard occupies a very prominent place. In 1835, he published a short treatise on the Diagnosis of Thoracic Diseases, which embodied what was most important in reference to the physical and general signs, without reference to the treatment; and in 1840, he gave to the profession a Series of Lectures in the Medical Examiner, which formed the substance of the first edition of the present work.

We now have the whole of these previous publications arranged, corrected, and expanded in the present volume, so as to form a complete treatise on the diagnosis and treatment of thoracic diseases. We value the work more highly on account of its combining the general symptoms and treatment with the physical signs, which is not done by most writers on this subject.

We fear that sufficient attention is not paid by the profession generally, and especially by teachers in our different medical schools, to diseases of the chest,—a class of diseases that far exceeds all others in frequency and fatality, and which requires, perhaps, a greater amount of knowledge and skill for their successful management than any other. According to the "*Abstract of Returns of Causes of Deaths*" in Massachusetts, we find that in 1843 there were 2,047 deaths from diseases of the "Respiratory Organs" exclusive of whooping-cough and influenza, out of a total of 7,177; in 1844, 2,036 (total 7,076); in 1845, 2,542 deaths out of a total of 8,070 deaths from all other diseases; being a ratio of over one third of the whole number. In this city the mortality from the same class of diseases is still greater. During the last year our deaths from "consumption" (phthisis pulmonalis) alone amounted to 1,659. Now in some of our medical schools there are no lectures given on physical diagnosis,—auscultation and percussion are passed over as of very little consequence; merely mentioned perhaps incidentally in connection with pneumonia, while the diseases of the chest themselves are despatched in the course of two or three lectures of one hour each. We have known a professor of the *practice of physic* in a medical college devote twelve continuous lectures to the discussion of a new theory on an abstruse subject of physiology, in a manner entirely beyond the comprehension of his class, and without advancing a single useful idea or practical precept that could ever be applied in the diagnosis or treatment of disease, while he devoted less than six hours to the elucidation of that class of diseases, which, as we have seen, sweeps off one third of the whole human family. Where is the utility, in this part of our country at least, in discussing the nature, symptoms, and treatment of

Plague and *Yellow Fever*, of the *Greek Leprosy* or the *Barbadoes Leg*, to the neglect of those diseases which the practitioner is liable to meet with every day of his life? We believe, moreover, that it is mainly owing to this neglect, and the consequent ignorance of thoracic diseases, on the part of medical men, that they prove so extensively fatal.

No one can believe that, under judicious treatment, such a vast mortality would occur. Many of the older class of physicians undervalue physical diagnosis, because they have paid no attention to it; and some of the younger class wholly neglect it, because, they say, it requires too much study and practice to make it available. In some parts of our country, physicians are satisfied, in a case of pneumonia, for example, with the general diagnosis of "*lung fever*,"—a term just as appropriate as would be *brain fever*, to indicate inflammation of the brain; *bowel fever*, to indicate enteritis; and *heart fever*, carditis.

There are undoubtedly difficulties in learning the physical signs of thoracic diseases, and so there are difficulties in the acquisition of any kind of knowledge—and often that which is the most difficult is the most useful: and so it is here. Any one can ascertain alterations of form in the physical structure of organs, but all have not the same power of judging of sounds produced in the interior of organs by the motion of solids, or of elastic or non-elastic fluids; or of the resonance produced by tapping the surface with the finger. Here we have phenomena somewhat complicated in their nature, and consequently difficult. Proper manipulation requires practice—the ear must be trained—we have to learn, not only the nature of the different sounds, but also what those sounds indicate—what the condition of organs is which gives rise to them.

This, as Dr. Gerhard remarks, requires time, attention, and organs of hearing which are not physically incapable of discriminating between sounds which at first may seem nearly similar. The first difficulty is surmounted: there still remains the other, which requires a knowledge of many circumstances which are connected with the pathology of the disease. These are those which relate to the physical condition of the viscera, or the pathological anatomy of the parts, and to the functional action of the organs, which is necessary for the production of most of the sounds. Hence the knowledge of the physical means of exploration requires no little time and attention, and cannot be learned in a careless or hasty manner.

"There is, therefore," says Dr. G., "this impediment to the study of the diseases of the chest, and of physical exploration, that the act itself is a matter of difficulty, and requires more labor than is willingly bestowed on it. The whole process of investigation requires this attention. Even the manual or mechanical precautions necessary to be taken, are not to be learned at the first trial, but require time in the performance of this act, like that of every other; for the ear and hand are not at first capable of the delicate and varied actions necessary for the satisfactory exploration of the thorax. But, although the apparently complex nature of physical exploration may deter many from attempting its study, the difficulties which at first present themselves are readily removed by patient and laborious attention, and are more than compensated from the certainty which results from a mode of investigation based upon fixed physical laws.

"Every step in the acquisition of this knowledge is appreciable; and in proportion as it becomes more accurate, the diagnosis of disease assumes a new character, which is never acquired when confined to the functional symptoms. This is true even at present, when the comparison of local and general symptoms to which I have just alluded has rendered the latter much more clear, and their value better defined. The physical signs have served as a point of departure, with which to compare the rational symptoms, and have thus rendered the latter more easy of recognition, and more positive in their relations with the internal lesions of the thorax. This is so obviously the case, that a glance at the works of any of the later writers upon the subject is sufficient to show that the rational signs have become of more practical service for the study of diagnosis than they have ever been before, and that many of these symptoms have been investigated with a care which was never before bestowed upon them. Some symptoms, it is true, have fallen into comparative neglect, because they are no longer of decided utility in diagnosis; but the greater number have derived new value from their connexion with the physical signs."

The method pursued by Dr. Gerhard in treating of thoracic diseases is explained in the following extract:—

"As the diagnostic characters of the diseases of the chest are composed of several distinct sets of symptoms, they may be studied after each class of them has been separately learned, or the diseases themselves may be first observed, and the symptoms analyzed as they present themselves at the bed-side.

"The former method is naturally adopted in a systematic treatise or course of lectures; the latter belongs more properly to clinical or demonstrative medicine,—a subject of which I treat more at large in another place. As the object of the present treatise is not only to explain the mode of application of these methods of investigation to the study of disease, but to teach the methods themselves, it resolves itself naturally into two parts. The first part will contain the explanation of the physical signs, and teach the method of acquiring them, which I have found most convenient for the pupil. In connexion with this portion of the subject I shall treat of those functional symptoms which are immediately connected with the organs of the thorax, and are therefore most conveniently learned at an early part of the study. The second part will be devoted to the examination of individual diseases in connexion with their symptoms and treatment. The series will thus comprise, as nearly as my time will permit, a complete history of the modes of exploration used in the diseases of the thorax, as well as an account of those diseases themselves."

We need hardly add that we regard the work of Dr. Gerhard as among the very best that treat of thoracic diseases that have yet been published. We trust it will find a place in the library of every practising physician.

The work of Dr. Hughes is an excellent one for young beginners in physical diagnosis. It is, for the most part, simple in language, clear in illustration, and adapted to the comprehension of the merest tyro in the art of auscultation. The author takes up in detail the usual subjects discussed in treatises of this kind, which he dwells on at sufficient length to give the reader a proper understanding of the different topics. His object seems to be, not so much to treat of the diagnosis of thoracic diseases, as to point out the physical signs of those diseases, and to explain the causes of those signs—to instruct the beginner in the mode by which he is to obtain a knowledge of them, as well as to direct him how to instruct them. This is done by statements and directions so distinct, and explanations so simple, as to make the work a favorite to all who wish to see a matter-of-fact subject treated as it should be—divested of all mystery.

The work of Dr. Bowditch is a clear,concise and comprehensive handbook on physical diagnosis. It can by no means supersede Williams, Stokes, and Gerhard, as a complete and systematic treatise, but as an introduction to the study of these more elaborate works—a pocket-companion for the student—a summary of the essentials of auscultation—we believe it will be found to have no superior. We like it for the plain common-sense view which the writer takes of the subject, and especially for not underrating the importance of the rational signs, which is too often done by authors on physical diagnosis. We recommend every student of medicine to supply himself with a copy of this work for frequent study and reference. We shall give an extended account of the contents of this treatise in a future number.

Art. XX.—*The Natural History and Diseases of the Human Teeth.* By Joseph Fox, M.R.C.S.L., &c. First American edition. Remodelled and edited by Chapin A. Harris, M.D.D.D.S., &c. Illustrated with 30 plates. Philadelphia: Barrington & Haswell, 8vo. pp. 424. 1846.

It is very gratifying to notice the great advancement of Dental Surgery in this country within the last few years. It has not only kept pace with the other departments of medicine, but has even outstripped them in some respects. This has been owing to combined action and effort on the part of those engaged in this highly honorable and useful speciality, and furnishes a valuable example for the imitation of those engaged in general practice.

The formation of "The American Society of Dental Surgeons"—the publication of the "American Journal and Library of Dental Science," and the establishment of the "Baltimore College of Dental Surgery" (in which Drs. Harris, Bond, and Handy, are professors), have tended to rescue the Dental Art from the inferior position which it formerly occupied, and elevate it to an equal rank with the other branches of medical and surgical science. The dentist is a practitioner of the healing art, and if well educated, deserves to rank, and does rank with the best in our profession. Although, as a general rule, we do not hold to specialities, yet we consider the Dental Art as an exception, especially when practised in our large cities; in the country, every physician must necessarily understand and practise dentistry, more or less; and we may remark, that there is far too little attention paid to this branch of surgery in our medical schools, and by private instructors. In consequence of this neglect, operations on the teeth, including extracting, are generally performed in the most bungling and slovenly manner, as if it were a matter of very little consequence how the teeth are managed. Again, it is important that the professed dentist should have a complete medical education; if he has not, he cannot expect to rank on an equal footing with other members of the profession. The teeth sustain relations to other parts of the system, and its different functions, of an extensive and important character, involving the absolute necessity of understanding the principles of physiology and pathology, in order to treat their diseases successfully; and he who merely pursues the dental calling as a mechanical art, as is often done, must fail in attaining that success and eminence to which every one should aspire.

The work of Mr. Fox, which first appeared in 1806, has always occupied a high place in the literature of this department of medicine. It has passed through several editions, and is quoted as standard authority by all writers on dentistry. The author was justly distinguished as a Lecturer on Dental Surgery in Guy's Hospital, and was no less distinguished in his life-time as a practitioner. The editor has made extensive additions, adapting the work to the present state of dental practice. It is also beautifully illustrated with plates, and as a work of art, will favorably compare with the handsomest works issued from the American press.

ART. XXI.—*Elements of Materia Medica and Therapeutics.* By JOHN P. HARRISON, M.D., Professor of Materia Medica and Therapeutics in the Medical College of Ohio. 2 vols., 8vo. Philadelphia, 1845.

WE barely announced the appearance of this work on the publication of the first volume, and expressed a favorable opinion as to its general merits. On a more minute examination, the opinion then formed has been confirmed; although, in some respects, the work may be improved, and doubtless will be, on passing to a second edition. The first volume treats of the modus operandi of medicines; the effects of remedies; classification of medicines; the circumstances which modify therapeutical indications; the theory and art of prescribing; formulæ; doses of medicines; synopsis of incompatible substances; poisons and their antidotes; patent medicines and nostrums; indications of cure; alterants (including mercury, iodine, arsenic, nitric acid, guaiac and sarsaparilla) and evacuants. The second volume treats of blood-letting; emetics; cathartics; enemata; incitants, or excitants; stimulants; antispasmodics; tonics; astringents; restoration of the secretions; diaphoretics; diuretics and antilithics; expectorants; emmenagogues; anthelmintics; anodyne or narcotic indication, and revulsive indication.

The remarks of Professor Harrison on blood-letting occupy 200 pages, and strike us as eminently judicious and practical. He very justly insists on the absolute necessity for copious and repeated blood-letting in pulmonary inflammation, especially in its early stages, when the crepitant rhonchus is present. In its first stage the dangers incident to pneumonia are dependent upon the engorged and suffocated state of the circulation in the lungs. The arterialization of the blood is interfered with, and owing to the obstruction in the lungs, the right side of the heart is unduly charged with blood and subjected to the stimulus of over-distension, whilst the left side is not properly supplied with the circulating fluid. Hence, in intense forms of attack, a weak oppressed pulse is very apt to be present, misleading the physician, unless he is aware of the cause to which this indirect debility is owing.

We have repeatedly seen the lancet withheld from an apprehension of debility in the first stage of the disease, thus allowing it to run on, unimpeded, to a fatal termination; when there could be no question whatever, that the apparent prostration was owing to the engorgement of the lungs, which would have been promptly relieved by removing the local congestion. We agree fully, therefore, with Dr. Harrison, that in these violent cases, attended with rusty or bloody expectoration, blood must be freely abstracted until the dyspnœa and pain are mitigated, and the engorgement relieved. In this manner only can the pulmonary circulation be speedily freed from embarrassment, and the right auricle of the heart receive its due supply of arterialized blood; and especially is a decided use of the lancet demanded in pleuro-pneumonia.

Our limits will not allow an analysis of the work at present; we can only, therefore, cordially recommend it, as containing a great amount of useful, practical matter. The author is well known as one of our best teachers and most eloquent writers.

ART. XXII.—*Elements of Surgery.* By ROBERT LISTON. Fourth American Edition. With copious notes and additions, by S. D. GROSS, M.D., Professor of Surgery in the Medical Institute of Louisville, etc. With numerous engravings. Philadelphia: Barrington and Haswell. 8vo. pp. 664. 1846.

THE Elements of Surgery by Mr. Liston is too well known to need praise at our hands. The fact that it has passed through three American editions within a short time, is sufficient evidence of the estimation in which it is held by the profession. We are happy to find that the able editor has preserved the arrangement of the author, and taken no liberties with the text, but added new matter, which is included in brackets. As a comprehensive compendium of Surgery, we believe the work will rank with the very best in the English language, if indeed it does not occupy the foremost place. It is, therefore, invaluable to the student as a textbook, as it is to the practitioner, as a gde in everything relating to the surgical art.

PART THIRD.

1.

Foreign Medical Intelligence.

ANATOMY AND PHYSIOLOGY.

1. "*Concours for the Professorship of Anatomy in the Faculty of Medicine of Paris.*—The concours for the appointment of the successor of Breschet to the chair of anatomy in the School of Medicine and Surgery of Paris is now in progress. The exercises which the candidates have to undergo are five in number:—1. A written essay, the subject being the same for all the candidates, which must be composed in five hours, without any extraneous aid whatever, and subsequently read in public. 2. An oral lecture, one hour long, on an appointed subject, after twenty-four hours' preparation. 3. An oral lecture on an appointed subject, after three hours' preparation, without any extraneous aid. 4. An anatomical dissection or preparation, to be made without assistance, and a public lecture thereon. 5. A thesis to be supported by argument. The subject of all these exercises is appointed by lot. The credit given to each candidate for what is termed "*anterior titles*"—that is to say, his previous scientific and practical labors, is not determined until the foregoing exercises have been completed.

"The subject of the written essay on the present occasion was the *Skin*.

"The following is a list of the subjects of each lecture, with the name of the candidates to whom they were respectively allotted:—M. Dumeril—the secreting organs in general; the liver. M. Chaissagnac—the organ of hearing; the liver. M. Bourgery—the eye; articulation of the head with the spine. M. Despretz—the digestive organs in general; articulation of the head with the spine. M. Gosselin—the cerebro-spinal nervous centres; testicle, vas deferens, and vesicula seminalis. M. Giraldes—comparison of the upper and the lower extremity; the bladder. M. Beclard—the hand; the appendages of the uterus. M. Denonvilliers—the organs of sense compared with each other; the appendages of the uterus; M. Sanson—the respiratory apparatus; the appendages of the uterus.

"The subjects of the theses are:—M. Gosselin—The ganglionary nervous system; its connections with the cerebro-spinal system of nerves. M. Dumeril—the evolution of the fœtus. M. Denonvilliers—comparison of the two muscular systems. M. Sanson—the articulations in general. M. Giraldes—How far comparative anatomy is useful in the study of human anatomy. M. Chaissagnac—the mucous membranes. M. Despretz—on the value of microscopic researches in anatomy. M. Beclard—the cartilaginous system. M. Bourgery—the appendages of the fœtus and their development.—[M. Denonvilliers was the successful candidate.—Ed.]

"*Concours for the Chair of External Pathology* (*Surgery*) *at Montpellier.*—The following were the exercises performed by the candidates. The subject of the written essay was, 'Pass in review the principal divisions of external pathology, so as to show theoretically the relations between medicine and surgery.'

"In a lecture, after twenty-four hours' preparation, M. Guissac considered *Cysts in general;* M. Boyer, *Scrofula in a surgical point of view;* and M. Alquie, *Tumors in general.*

"M. Guissac's thesis was, *On the improvements in surgery due to the progress of pathological anatomy.* M. Boyer's—*What is due to nature and what to art in the cure of surgical diseases?* M. Alquie's—*Appreciate the labors of the Academy of Surgery.*

"All the candidates had to deliver an extemporaneous lecture on the same subject, viz.—*On foreign bodies in the air-passages.*

"M. Boyer was unanimously elected Professor of Surgery, and the jury passed a warm eulogium in the most complimentary terms on M. Alquie."—*Gazette Med. de Paris.*

2. "*Disinfection of Anatomical Subjects.*—The problem of preserving subjects for anatomical purposes seems to be at length solved. We have recently minutely examined the dissecting-rooms of the Practical School of the Faculty of Medicine, and were astonished at the perfect state of preservation of bodies which had been allotted to the students several weeks previously. We intend shortly to devote an article to a detailed account of the processes employed. For the present we shall content ourselves with stating, that by injecting the arteries with an aqueous solution of sulphate of soda at eighteen degrees, putrefaction is prevented for several weeks. Lotions with a solution of chloride of zinc ensure the ulterior preservation; the organs retain their shape and color; the instruments sustain no damage; and no smell is perceived even within a few inches of the body. This important result must doubtless exert the most salutary influence on the health of the pupils, and also materially assist the progress of anatomical studies.—*Ib.*

3. "*Adventitious Muscle.*—Dr. Miller, of Glasgow, states that he has 'detected an adventitious muscle deserving the notice of the profession as lying in the space recommended by the late Sir Astley Cooper for tying the subclavian artery. Arising fleshy, and about half an inch in breadth, from the middle and superior edge of the clavicle, close to the outer edge and origin of the sterno-cleido mastoideus, and its fibres were directed upwards and outwards, crossing the omohyoid, to be inserted in the upper border of the trapezius, two inches above the clavicle. I imagined at first it might have been a prolongation of the trapezius, but, on separating the cellular tissue, there was a distinct space of more than one inch at its origin.'"—*Med. Times*, Jan. 24, 1846.

MEDICAL PATHOLOGY AND PRACTICAL MEDICINE.

4. "*A simple Introduction to the Clinical Chemistry of the Urine.*—Under this title, a communication from an anonymous correspondent appears in a late number of the *Medical Gazette*. The directions which it gives for this investigation are sufficient for all practical purposes. Its perusal, in an abbreviated form, will repay the reader.

"'The urine should, for all purposes of examination, be collected clear from admixture of dust or other impurities. The morning's urine is generally employed, as it is difficult to obtain that passed during the whole twenty-four hours; but the quantity passed during this space of time should be noted; and, also, it should be ascertained whether this is greater or less than the quantity usually passed by the patient during that space of time. The note should also state what urine was examined, whether the morning's, or that passed in the course of the day.

"'The characters of the fluid should then be observed—best in the glass in which the specific gravity is presently to be taken, its reaction on test-paper, and any sediment that it may have deposited. The latter should be examined under the microscope. The acid and alkaline reaction is shown by blue and red litmus-paper.

"'If the urine is acid, turbid, with a red deposit staining the sides of the vessel, we know at once that the urates are in excess; if alkaline, or even acid, of a pale color, slightly turbid, with a light cloud floating in it, and an iridescent pellicle on the top, we presume the phosphates to be in excess, and this the more if the urine is highly offensive to the smell, and full of mucous strings. A clear pale urine may be found in connexion with hysteria, with Bright's disease of the kidney, or with diabetes. A smoky color is very indicative of

Bright's disease [a yellowish tint on the sides of the vessel, or communicated to linen, indicates the presence of bile], and a greenish tint should remind us to look for crystals of oxalate of lime.

" 'The specific gravity is best estimated by means of a common hydrometer, made for the purpose, contained in a strong glass tube, in which it may be floated when required. It should be allowed to sink gently down to its level, as all the fluid that collects upon it higher up tends to weigh it down, and makes the urine seem of lighter specific gravity than it really is. High specific gravity, that is to say, all above 1025, may denote diabetes, or may result from the patient, at the time, employing diuretic salts. Low specific gravity, or below 1014, may be connected with granular degeneration of the kidney. The specific gravity, in connexion with what has been already noted concerning the color and reaction of the fluid, is to guide us in the subsequent application of our tests.

" 'Heat and nitric acid are, for most purposes, enough; their effects are best witnessed in common test tubes, into which the urine may readily be poured, even from a large vessel, by using one tube as the guide, down the side of which the fluid may run into the other.

" 'Urine of a low specific gravity had better be heated, and if a precipitate forms, a few drops of nitric acid should be added If the precipitate re-dissolves, it is to be considered indicative of the presence of the phosphates in excess: if it do not dissolve, but be rather increased by the addition of the acid, it is albumen. It is to be remembered that a precipitation of the phosphates by heat may take place as well in acid as in alkaline urine.

" 'To urine of a higher specific gravity, nitric acid may be added at once. Every precipitate that forms may be uric acid or albumen. To determine this, the fluid should be heated, when the precipitated uric acid will be re-dissolved, the albumen will remain coagulated. A partial or entire solution of the precipitate, by long continued heat, may denote so interesting a form of disease, that the beginner would do well to call in the aid of a more experienced chemist under such circumstances. The results thus obtained should not be lost; the tubes must be set by for a day, and then it should be noted, by the aid of a common pocket measure, how high the precipitate stands in the fluid, occupying, for example, half a third, or an eighth part, as the case may be. The quantity of little crystals of uric acid that have darted over the inside of the tube should also, at the same time, be looked to.

" 'If precipitate forms, a reference to the specific gravity must tell us whether we may presume that we are dealing with healthy urine. If the specific gravity be high, and the re-agents have produced only slight effects, the nature of the case may tell us whether it be worth while to look for sugar in the urine. This is most satisfactorily effected by means of fermentation: about two drachms of the urine being introduced, with a little yeast, into a phial with a perforated cork, through which the longer leg of a bent tube passes, and the whole inverted in a cup of cold water, where another phial, filled with water and inverted, is to receive the short leg of the tube. At a temperature above 60°, any sugar that may be present will begin to be decomposed, and carbonic acid will collect and remain for some time unabsorbed in the other phial. If no gas collects, there is no sugar in the urine; but there may have been albumen which we have failed to detect from not adding enough acid, for a little nitric acid only renders the albumen uncoagulable; forms, in fact, a soluble nitrate, which is not precipitated by heat. A few additional drops of nitric acid will prevent any error from this cause, by at once precipitating the albumen.

" 'It remains now to consider those cases where the urine evidently contains some soluble matter in excess, which, however, is neither albumen nor uric acid, and to notice a few appearances which are sometimes perplexing to a beginner. A free effervescence may arise either from the presence of the carbonate of an alkali, or the decomposition of urea, or that of uric acid. The first case might be solved by looking to see what the patient is taking, all neutral salts, with vegetable acids, being converted into carbonates of that base during their passage into the urine. The second is best determined by setting aside two drachms of urine in a saucer, with about a quarter of its volume of nitric acid, of course, without having applied heat, when the appearance of crystal denotes an excess of urea. The third is best solved by adding a few drops of any acid to the urine in a tube, and observe, as before recommended, the number of crystals that have formed by the ensuing day.

" 'The flaky precipitates, recognized to be albumen, may be seen sometimes yellow, sometimes red or pink, or covered with air bubbles. For the present, it is enough to state, that these appearances result from the decomposition of the uric acid by the nitric acid, which deepens the color of the urine, or of the urea, or any substances, as above, which effervesce on the addition of this reagent; or, lastly, the yellow color may arise from there being nothing present to prevent the nitric acid producing this its ordinary effect upon animal substances.

" 'The sum of these remarks is this. That the urine deviates from the condition of health most commonly in a few particular ways, whether by an excess or deficiency of its normal constituents, or by the presence of matters which should not exist at all in the urine.'

"The chemical study of the morbid conditions of the urine is thus shown not to be so difficult as many have believed it to be. Without attention to them, our therapeutics are a dead letter, and here are the means of preventing such a result: they are sufficiently simple and ready of application."—*London Lancet, April*, 1846.

5. "*On the Treatment in cases of Urinary Deposits.*—In connexion with the above clinical investigation of the urine, we may refer, with advantage, to the views of Dr. Aldridge on the treatment of some of its morbid conditions. We find them in the *Dublin Hospital Gazette.*

" '*Treatment of lithic acid deposits.*—The deposits are either crystalline or amorphous. When the urine for any length of time continues to deposit, after each emission, the rhombic prisms of lithic or uric acid, it is desirable to exhibit either bicarbonate of soda or potash, in doses of ten grains or a scruple, dissolved in half a pint of water three times a day, so as to render the urine neutral or alkaline ; but this effect being obtained, the practitioner ought to direct his efforts to subdue the gouty condition which is the cause of the symptom. If the urine be albuminous or sanguinolent, and there is much pain in the loins, it shows the attack to be of an inflammatory character, and to require a treatment locally antiphlogistic, otherwise recourse may be had to colchicum.

" 'If the lithic acid be amorphous, its precipitation may depend either upon an excessive secretion of the solid constituents of the urine, or upon a deficiency in the secretion of water. In the former case, the specific gravity of the urine becomes normally increased in proportion to its quantity. The treatment should be directed to a rheumatic state of system ; at the same time, it is desirable to hold the excessive lithates in solution by means of alkalies. Iodide of potassium is a medicine that fulfils both indications, and given in doses of five or ten grains, three times a day, will be found serviceable.

" 'When the amorphous lithates become deposited from a deficiency of water, the quantity of urine will be ascertained, upon inquiry, to be less than usual. Sometimes, however, the patient is deceived as to this point by the concentrated and stimulating secretion, demanding frequent evacuation : under all circumstances, it is most desirable for diagnosis that the daily discharge of urine should be measured. Diminution of the watery part of the urine may be produced by irritation of the kidneys, either idiopathic or symptomatic ; or it may be the consequence of a vicarious watery secretion from some other organ. When the deposited lithates are of a brick-red color, the scanty secretion of water which produces their subsidence is the effect of the first of these causes ; in that case, a fever, either essential or symptomatic, exists : and the remedies calculated to remove the fever are those fitted to increase the urinary secretion, and diminish the lithic deposit. If the deposited lithates be pale or buff-colored, the chances are, that they are caused by a nervous diminution of the watery element, connected with that weakened action of the ganglionic nervous system to which the name of dyspepsia is given. If such be the case, the internal exhibition of a scruple of alum, in half a pint of water, three times a day, will soon remove the tendency to lithic acid deposit. A pink color of the sediment is usually found in connexion with an imperfect discharge of the biliary functions.

" '*Treatment of phosphatic deposits.*—These deposits, when principally crystalline, generally depend upon the urine being deficient in acidity: in that case, the treatment will be described under the head of alkaline urine. Sometimes, when the bladder has been long diseased, a copious deposit of amorphous phosphates subsides from the urine; it is always under such circumstances accompanied by pus.

" '*Treatment indicated by weakly acid, neutral, or alkaline urine.*—If the urine be neutral, or weakly acid, from a vice of secretion, it usually shows that the kidneys are inflamed. In acute nephritis, the employment of general and local depletion, as well as the exhibition of emollients and contra-stimulants, must be regulated by the severity of the disease, and the state of the constitution, according to the ordinary principles by which inflammations are combated. In chronic nephritis, great benefit is derived from local depletion and counter-irritation, especially from the establishment of setons in the neighborhood of the affected glands. In the renal complication of typhus, large blisters to the loins [?] and the internal administration of wine are usually indicated; small doses of oil of turpentine will, in these cases, often increase the quantity and restore the acidity of the urine.

" '*Treatment of the oxalate of lime deposits.*—Although there can be little doubt that oxalic acid is generated in the urine by the putrefactive decomposition, and often occurs subsequent to secretion, in a manner totally independent of disease, yet it is also certain that this decomposition frequently results from an essential vice of secretion. The morbid conditions which give rise to this change are not yet known; but it is well ascertained, that in every instance of the kind there is frequent desire to pass water, pain in passing it, and that the secretion is commonly loaded with epithelium. These phenomena proclaim the existence of irritation of the mucous membrane. Sometimes the crystals of oxalate of lime, like those of uric acid, cohere in the calyces and infundibula, forming calculi, which produce paroxysms of nephritic colic, by their descent into the bladder. In such cases, inflammation of the lining membrane may be mechanically produced; but it is doubtful whether the symptoms of mucous irritation, which usually accompany the oxalate of lime deposit, are due to the irritating contact of the sharp crystals. Whatever is the cause of the mucous irritation, it constitutes the lesion which in oxalate of lime diathesis you are especially called on to remove; and its successful treatment requires no little delicacy in the application of therapeutical agents. Unlike acute mucous inflammation, depletion and emollients will act in this irritation injuriously, if employed in the first instance; you must have recourse to tonics immediately, such as the mineral acids, vegetable bitter astringents, &c.; and having employed these means for some time, you will then find the greatest benefit from alkalies largely diluted. It will be often necessary to alternate these methods of treatment for a considerable period, but you will generally find that ultimate benefit will be derived from steady persistence in their use.' "—*London Lancet.*

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6. "*Thoracic Percussion.*—M. Lanza, professor of clinical medicine at Naples, lately read to the Scientific Congress a paper on Thoracic Percussion, in which he endeavored to determine the normal sounds produced by percussion in the human chest, more exactly than had been hitherto attempted. The results at which he arrived are, that the sounds vary, in the normal state, according to the constitution of the individual, and more especially according to the natural tone of their voice, which has an intimate connection with the state of the thoracic organs. Thus, for instance, in three healthy individuals, of whom the one has a *tenor* voice, the other a *bass*, and the third a *baritone*, it may be certainly assumed that percussion will yield a different result in each. In the first, the sound will be similar to that produced in striking a perfectly empty cask; in the second, the sound will be more masked, as if striking a cask filled with raw silk or cotton; in the third, the sound will be a mean between the two former, and the more his voice approaches to the acute tone, percussion will bring out a

sound, at the summit of the chest, having a character approaching to that of the tenor. If, on the other hand, the voice has an inclination towards the bass, then the base of the thorax will yield the loudest sound on percussion. So that an individual being given, M. Lanza, without hearing him either speak or sing, can, by the sound elicited by percussion, predict the tone, quality and extent of his voice. M. Lanza has made an immense number of experiments on this interesting question, the clinical application of which is easily foreseen; for if it be true that the normal sound of the chest varies according to the original form of the tissues, that is to say, according to the constitution, then the anormal sounds elicited by percussion must, in order to appreciate differences, be judged of relatively to the *type* of the individual. From all this it follows, that there is at least reason to examine anew the presently received opinions regarding percussion, in the study of diseases of the chest."—*Annales de Thérapeutique*, December, 1845.

7. "*Ovarian Dropsy—Spontaneous Cure.*—A woman, aged 28, had suffered from ovarian dropsy of the right side for two years. The tumor was large and increasing, when a small projection appeared in the region of the umbilicus, and at last burst. A torrent of water escaped through the opening, which continued fistulous. The discharge became puriform. The abdomen continued to decrease, the discharge to become less, till at length it altogether ceased, and the wound cicatrized. The woman was completely cured. At a later period, she married, became pregnant, and was delivered of a fine child. The abdomen continued large, and it soon became evident that the tumor had returned. It ran exactly the same course as the preceding, continuing to increase till an abscess formed at the umbilicus. The fluid was evacuated, and the sac continued to contract till there was no further secretion. The wound cicatrized, and the cure has continued complete. (*Medicinische Zeitung.*) Facts of this kind are rarely met with; but we cannot help regretting, that in our day surgeons see no other mode of curing these tumors than by extirpation."—*Ib.*

8. "*Ammonia in Asthma.*—M. Guérard has employed ammonia in a hundred cases of asthma, and generally with a favorable result. In some, indeed, its effects were truly marvellous, the paroxysm disappearing as if by enchantment. We lately saw in his wards an old woman, aged 60, who, on admission, was literally suffocating, the respiration being nearly suspended, in consequence of extensive pulmonary emphysema; the paroxysms recurred with extreme violence; but these disappeared, after a single application of ammonia to the throat, a month ago. At the present time, this woman is tolerably well (*assez bien*), she sleeps quietly, her respiration is free, and her physiognomy tolerably calm; she merely complains of an uneasy feeling in the throat, caused by relaxation of the uvula, which is resting on the base of the tongue.

"M. G. applies the remedy in the following manner:—He dips a small pencil of charpie into pure liquid ammonia, and then instantaneously into a glass of water, after which he immediately passes it to the back of the throat, touching rapidly the velum, uvula, and œsophagus to a greater or less extent. He seldom has occasion to repeat the operation; when there is merely simple emphysema the improvement has been permanent. The pencil should neither be carried too deeply into the throat, nor allowed to remain too long in contact with the soft parts, more especially the posterior wall of the pharynx; the reaction resulting from such an application is, at times, followed by the most frightful symptoms, menacing instant death."

9. "*Simple Method of causing abundant Perspiration. By Dr. Serre.*—This method of obtaining a copious sweat is very simple; and may be used in all circumstances, without the aid of extra coverings or hot drinks.

"Take a piece of burnt limestone, one-half larger than a man's fist; envelope it in some folds of linen, wrung out of water; and above this moist linen, roll a piece of dry linen. This packet must be so fixed, as to prevent it becoming at all loose.

"Place two packets, formed according to these directions, in bed, beside the patient, one at each side, in the neighborhood of the trunk. Close proximity is unobjectionable, in consequence of the dry cloth being the external layer. An abundant moist heat is speedily generated by the combination of the lime and water; which heat, diffusing itself through the bed, causes the patient to perspire profusely.

"The apparatus remains efficient for about two hours. Upon unrolling the parcels, it will be found that the lime has crumbled into powder."—*Bulletin de Thérapeutique* for December, 1845, as quoted in the *Encyclographie Médicale*, for January, 1846.

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10. "*Hereditary Brittleness of Bones. By Dr. Pauli.*—Many instances are recorded in which individuals have been affected with a sort of constitutional brittleness of the bones, and in whom fractures have happened with an unfortunate degree of facility; but we are not aware that this disposition has been observed in several members of the same family, so as to be in a manner hereditary. This has induced us to republish entire the following article, extracted from a work of Dr. Pauli, of Landau.

"'In the commune of Offenbach, there resides a family, all the members of which have already had fractures. Three of them have each had two fractures; another three, either of the arm or of the leg; one has even had so many as five fractures of one or the other extremity; and to produce these injuries no considerable violence was in general requisite. The father and grandfather before them had fractures of the limbs. This family, moreover, is a very healthy one; there does not appear to be any scrofulous or other taint in operation. It is remarkable that not one of them suffered a fracture before the age of eight, so that one might suppose that this particular fragility of the osseous matter was developed only towards the age of puberty. It would seem, however, that the condition of this fragility consists in some change of the chemical constituents of the bones in their relations to each other.

"'It has been frequently observed that men addicted to the use of brandy often experience fractures (in consequence of a degree of brittleness induced in the bones), which requires a long course of treatment to insure their consolidation. I met with this great fragility of the bones in a subject of this kind, a man fifty-four years of age, who hung himself three years ago at Gocklengen; the ribs, particularly, snapped like glass; and a very moderate force sufficed to fracture the long bones. But if fractures in these old drunkards are cured only very slowly, precisely the contrary is the case in the family above-mentioned; for in every instance which occurs in it, the fracture is very speedily consolidated, so that generally the callus is perfectly firm at the end of three weeks. I should add, too, that when the same bone has been broken a second time, the fracture has never occurred at the seat of the callus.'"—*Journ. de Chirurgie*, Jan., 1845, as quoted in *Dublin Hospital Gazette*, 1*st February*, 1846.

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11. "*Case of Disease of the Brain following Ligature of the Carotid Artery. By J. P. Vincent, Esq., Surgeon to St. Bartholomew's Hospital.*—James M., aged 48, in July, 1829, was admitted into St. Bartholomew's Hospital with an aneurismal tumor under the right ear. It had been forming eight months, and was about the size of a small orange. On July the 18th, the author tied the common carotid artery. In about an hour and a half after the operation, the patient was discovered to be slightly convulsed on the right side. He afterwards sunk into a state of stupor. He was bled to thirty ounces. After this he became more sensible; he had twitchings of the right side; he was again bled during this and the two succeeding days, and altogether lost eighty-four ounces; his left side became paralyzed; his urine and fæces passed off involuntarily; he swallowed with difficulty; and on the 24th he died.

"*Autopsy.*—The veins of the right side of the brain were not so filled as on the left. The substance of the brain on the right side was quite soft and cream-like. There was no deposition of blood in any part, but a little more serum in the ventricles than usual."—*Communicated to the Royal Medico-Chirurgical Society of London*, 13*th January*, 1846.

OBSTETRICS AND DISEASES OF FEMALES.

12. " *Case of Delivery during Sleep. By Dr. Schultze.*—Dr. Schultze was called on the 25th of May, 1844, to attend the wife of an artizan, who had reached the full term of her fourth pregnancy. He found her lying in a state of profound somnolency, so that it was quite impossible to rouse her, either by violently shaking her, or by applying to her nostrils the most powerful stimulants, such as ammonia and ether. On the third day of this unnatural sleep, the woman, without awakening, was delivered of a healthy, living, and well-formed male child. On visiting the female the following day, Dr. S. found that she had not long spontaneously awakened from her sleep: and as she had no recollection of her delivery, she was somewhat astonished to find the child had been born without her having been aware of it!"—*Annales d'Hygiène*, Jan., 1845, as quoted in *Northern Journal of Med.*, Nov., 1845.

13. " *Death of the Child from Injury dependent on forcible Expulsion. By Dr. Sewell.*—Mrs. B., aged 30, married, and pregnant with her first child, was seized during the night with labor-pains. Being a refugee from the late fire (in Quebec), she occupied part of a garret in which two or three other families and some young men were sleeping. Feeling a delicacy in being confined under such circumstances, she suppressed her cries till daylight, when she descended into a lower apartment, in which resided a woman who had been recently confined, to whom she detailed her feelings, requesting, at the same time, that some warm water might be given her to sit over, to relieve what she described as a great pressure at the lower part of the bowels. She had scarcely seated herself on the edge of a rather high chair, when a severe pain seized her, and before any assistance could be afforded (though one or two women were in the room), the child was forcibly expelled, and fell head foremost on the floor, being killed on the spot. I should have mentioned, that I was sent for immediately after Mrs. B. had descended into the lower chamber, but did not arrive till about twenty minutes after the delivery. The child, which was a remarkably fine one, was perfectly dead, and still attached by the cord to the placenta, which came away shortly after the infant. In the above case, not the slightest suspicion of criminality can attach to the mother; but suppose the delivery to have taken place in private, though there would be ground for a medico-legal investigation, still, with the fact brought before them by the coroner, that such cases as that now reported, do not unfrequently occur, a jury should be extremely cautious how they return a verdict of wilful murder against the unfortunate mother."—*British American Journal*, No. 5, vol. i., 1845.

SURGERY.

14. " *On the Advantages of Submucous Tenotomy for the Relief of Strabismus. By C. Brooke, M.B., Cantab., F.R.C.S.E.*—The author remarks that this operation does not, at the present day, prefer any claim to novelty, having been long since proposed and practised; but as the physiological reasons which appear to render this mode of operating preferable to any other, as being more likely to avoid the usual sources of failure, are very conclusive, and have not, as far as he is aware, been clearly pointed out, the subject may not, perhaps, be considered unworthy the attention of the Society.

"The occasional return of the strabismus as a consequence of the ordinary mode of operating by a free division of the conjunctiva, may be explained on the physiological principle, that whenever a superficial wound of which the edges are capable of being approximated, is allowed to heal by granulation, and to cicatrize, so strong is the tendency of nature to restore the continuity of the normal integument, that although a cicatrix of considerable width may at first appear, this will invariably be subsequently removed by interstitial absorption, and a linear cicatrix will alone remain. This principle is presumed to be applicable to the eye. When the conjunctiva is freely divided, as well as the tendon itself, both will probably be reunited to the eye-ball at a point posterior to that from which they had been separated, and the intervening space will be filled up by granulation. But when the subsequent process of absorption takes place, the conjunctiva, and with it the tendon, will be more or less restored to their former position, and the strabismus will return.

"In all the cases in which submucous tenotomy has been performed, the result has been successful. The paper is concluded by a description of the mode of performing the operation.

"Dr. Gregory, to elicit discussion, drew attention to the protrusion of the eye-ball after this operation, occurring sometimes immediately, at others not till weeks after the proceeding.

"Mr. B. B. Cooper questioned whether the operation for strabismus was desirable or not. The deformity was most frequent in children, who, under constitutional treatment, usually recovered from it. He had performed the operation frequently, but usually some protrusion followed, and the symmetrical action of the eye was lost. Whether the operation was submucous or not, mattered little as to the result. He alluded to the case of a child eleven years of age, who had suffered first from strabismus, at the age of four years; the deformity, under attention to the general health, was gradually lessening. Like other cases of this kind, the defect was more observable under states of mental excitement.

"Mr. Prescott Hewett considered the operation should not be performed on young children. In adults it was a fair operation, and had proved a successful one in his hands. He related the dissection of a case which had been operated on some months previously, the patient dying from disease of the lungs. The muscle, which had been divided, was attached to the eyeball immediately behind its original attachment by means of a long slender tendon, formed of condensed cellular tissue three lines in length; this rendered the muscle operated on as long as the other recti.

"Mr. Dalrymple had witnessed many operations for strabismus, and seen no bad results follow them. He had heard of a case, however, in which the sclerotic was wounded, the vitreous humor escaped, and the eye was lost. In another case much ecchymosis ensued, followed by suppuration and loss of sight. There was more fear of danger from ecchymosis when the submucous operation was performed, than when the common proceeding was resorted to, as there could not, in the former, be a free escape of the effused blood. Granulations were not uncommon from the point of puncture, but as the wound decreased in size, the base of the granulation became very small, and it might be easily snipped off with a pair of scissors. He attributed the occurrence of external strabismus, after division of the internal rectus, to bandaging the eye operated on after the division, and he recommended tying up the sound eye instead, for two or three days. He thought the operation should not be performed before puberty, particularly on girls, as the occurrence of menstruation might remove the defect. Operation would not cure in cases where a child squinted on one day and not on another. He related a remarkable instance of this kind, in which on alternate days there was no squinting whatever: this continued for ten months. Quinine was given. He did not know the result. Intermittent strabismus, though not so marked as in this case, was not rare.

"Mr. Wade would not operate until adult age, or as long as there was any hope of cure from constitutional treatment. He had performed this operation many times. When he commenced the operation, he not only divided the tendon, but any fibres or cellular tissue which prevented the eye from becoming quite straight at the time, and tied up the eye afterwards. The eye protruded, and no benefit resulted from the operation. He had since only made a small opening into the conjunctiva, and merely divided the tendon, tied up the sound eye, and kept the patient in a darkened room. No bad results had followed, except in a few cases, an almost inappreciable increase of fulness in the eye, which, however, was not a balance against the good effected."—*Communicated to the Royal Medical and Chirurgical Society*, as quoted in the *London Medical Gazette*, *Feb.* 27, 1846.

15. "*Dangers of Operations on the Neck.*—Dr. Lenoir removed, on the 26th of October, a tumor from the neck of a man, aged forty-five, the exact nature and seat of which were not very positively known before operation. The tumor was raised by the arterial pulsations, but, on auscultation, no abnormal sound could be detected within it; the patient could swallow only liquid food, and M. Lenoir resolved on removing the disease, because suffocation had become imminent. The operation was performed with success, and its close was attended with a remarkable circumstance: the tumor had been separated on all sides from the healthy parts with a spatula, in order to avoid wounding the numerous vessels placed in the vicinity, and it still was attached to the neck by a pedicle placed at the basis of the cervical region. A ligature was, fortunately, passed round this pedicle before it was divided: and, after section, it was found to consist of the internal jugular vein. M. Lenoir remarks, that the operation might have terminated by the sudden death of the patient, from introduction of air into the vein, had not the precaution of tying the pedicle been prudently resorted to."—*Medical Times*, Dec. 6, 1845.

MEDICAL CHEMISTRY, MATERIA MEDICA AND PHARMACY.

16. "*Indian Remedies. By William Winder, M.D., Montreal.*—Although the Indians, being without the advantages of science to guide them in their choice of remedies in the treatment of disease, derive their principles from mere experience, it is certain, that we are indebted to their Materia Medica for many valuable articles of a vegetable kind. It is as certain that they are frequently successful in the adaptation of these articles to complaints of a formidable character.

"One of the remedies in great use amongst them is the *Geranium Maculutum*, which many eminent physicians of the United States rank as one of the most powerful vegetable astringents, being principally composed of *tannin* and *gallic acid*. In the second stage of dysentery and diarrhœa, after evacuants—in hemorrhages of the alimentary canal—and as a styptic in external bleedings, it rarely fails of giving relief. Its dose is from gr. x. to ʒss. of the powder, or ʒss. to ʒj of a decoction made with a drachm of the root to half a pint of boiling water. With the Indians it is a favorite external styptic, the dried root being powdered and placed on the mouth of the bleeding vessel. It is also much used by them as a wash in leucorrhœa. Internally, in doses of half a teaspoonful in cold water, they consider it very efficacious in hemoptysis; and in this opinion they are fully sustained by Thacker, Mease, Bigelow, and others.

"The *Xanthoxylum Fraxineum*, or Prickly Ash, is one of the most valuable remedies of the Indians, for the cure of rheumatism. It is said to resemble guaiacum in its properties, and is much used by the Americans as a remedy in chronic rheumatic complaints, and particularly in cases of a syphilitic taint. Bigelow says he gave the bark of this shrub in doses of ten and twenty grains with great advantage.

"The *Xanthoriza Apifolia* is an excellent tonic. Its composition is principally *resin* and *gum*; and the taste is intensely bitter. The dose is ℈ij of the powdered root. The Indians administer it as a diuretic in dropsy, and also use a cold watery infusion for inflamed eyes.

A favorite and well-known remedy with the Aborigines is the *Eupatorium Perfoliatum*, having the familiar names, in the United States, of Boneset, Crosswort, Thoroughwort, &c. Its taste is intensely bitter, with a slight astringency, but no acrimony; and its operation is tonic, sudorific, cathartic, according to the mode of its exhibition. It is given in *cold* infusion in intermittents, continued fevers, and inflammatory diseases; to produce vomiting and catharsis in *hot* infusion; and as a tonic in substance. In the United States Pharmacopœia, there is an officinal formula—*Infusum Eupatorii*. The natives administer it with good effect in fever, and as a common drink in acute rheumatism, pouring a quart of boiling water on two drachms of the leaves, and drinking about three ounces three times in the day.

"The *Cornus Florida*, Dog Wood, is said to differ little in its chemical composition from the Peruvian Bark; and Dr. John Walker states, that of all the indigenous tonics, this is the most beneficial in intermittents. Thirty-five grains of Dog Wood Bark are said to be equal to thirty grains of cinchona. The Indians use a decoction of small branches and buds, in want of appetite and debility of the stomach. It is valued also as a poultice to correct ill-conditioned sores.

"The *Polygala Senega* is too well known to need description. It is much used by the Indians, who give it in cold infusion during the remission of fevers, attended with great prostration of strength; and in diseases of the pulmonary organs. They also esteem it highly in female complaints: and in this agree with Dr. Chapman, who considers it the most efficacious emmenagogue, and useful in all forms of amenorrhœa.

"It is not a little remarkable, that among all the Indian tribes known to Europeans, the *production of increased perspiration* constitutes one of their principal remedies. A favorite and universal mode of procuring this is by the use of the vapor bath. The construction of this is similar throughout the different nations of the north-west. Mr. Cormack, in his account of his expedition to discover the Aborigines of Newfoundland, or Red Indians, says, that he discovered, in a deserted village, the remains of a vapor bath. The method used to raise the steam was by pouring water on large stones made very hot. Over these, a hemispherical frame-work, closely covered with skins, was placed to exclude the external air. The patient then crept in under the skins, with a birch rind bucket of water, and a small bark dish to pour the water on the stones, and thus enable him to produce the steam at pleasure. He remains so long as the heated rocks retain sufficient heat to raise the vapor, when he retires, wrapped in a robe or blanket, and goes to bed. The bath is principally used in rheumatism, dropsy, and the cold stage of fever. Warm sudorific infusions are taken in the bath: and the debility induced is sometimes so great that the patient faints, which, however, followed by proper treatment, generally has a beneficial effect.

"I have said that the Indian is guided by experience in the treatment of disease. For example, when suffering from acidity of the stomach, he takes some of the absorbent earths that are found on the banks of the rivers. Bleeding in their inflammatory diseases is also much used. But the simple native of the forest does not employ the former from any knowledge he possesses of the principles of chemistry, nor the latter from any acquaintance with the laws of physiology.

"A modern writer states, that in their febrile diseases, they make the state of the skin and bowels the guide by which to regulate their practice. When the skin is moist for a considerable time, and the thirst ceases, they say there is no danger. When the evacuations from the bowels become less offensive, and change their color, the tongue becoming clean, they stop purging and diaphoresis. If there be great debility, they commence giving tonics, which are commonly bitters. Should these induce costiveness or a return of the fever, evacuants are again had recourse to. There is something so rational, and yet so simple in all this, that I hardly think we should find anything to improve upon it in Sydenham or Cullen; and, as the great Boerhaave tells us, that 'simplicity is the seal of truth,' probably there is here as much practical, unsophisticated truth, as will be found in the elaborate treatises of ancient and modern professors.

"That the Indians are acquainted with the mode of relieving inward pains by treatment *similar to the Moxa*, is seen by their burning a piece of touchwood over the pained part, and suffering it to produce a blister. They are also aware of the advantage of relaxing the muscles in dislocations; for in cases where they do not succeed readily, they nauseate the patient to a most distressing degree, and then find very little difficulty in reducing the luxation. Tumors and abscesses are allowed to suppurate, generally, without any application to them. When much inflamed and painful, plasters of bruised herbs, or warm fomenting poultices, are used. If matter forms, they make an incision for its escape, and continue the poultices to promote the discharge."—*British American Medical Journal, January*, 1846.

17. "*Houdbine's Vesicating Plaster.*—Three parts of purified Burgundy pitch, three parts of resin elemi, three parts of oil of cantharides, six parts of yellow wax, six parts of cantharides in fine powder, six parts of sulphuric ether, one part of finely-powdered camphor. The finely-powdered cantharides are placed in a vase, the ether poured upon them, and then left in contact for eight days. The Burgundy pitch, wax, and elemi are then melted with the oil at a gentle fire; the cantharides are added, and the mixture kept in the melted state for two hours at least, after which the powdered camphor is added.

"This composition is spread on a piece of cloth waxed on one side, the plaster adhering better than when the surface on which it is spread is smooth."—*Med. Times, Pharm.* No. Sept., 1845, from *Bauchardat's Annuaire* for 1845.

18. "*Large Blisters, utility of, in combating Abscesses and Chronic Engorgements of the Iliac Fossa.* (Rayer.)—M. Rayer has efficaciously treated cases of phlegmon of the iliac fossa, whether suppuration has ensued, or whether it has been prevented by energetic revulsion, by means of large blisters applied successively on the abdominal parietes."—*Ibid.*

19. "*Treatment of Buboes.* (Reynaud).—1st. At the commencement, if there are well-marked characters of inflammation, apply leeches. 2dly. When the bubo is in a state of suppuration, apply to the centre of the point of fluctuation a blister about as large as from a sixpence to a shilling, according to the extent of the tumor; when the blister is well formed, remove it entirely, dry the part, and place on the skin a pledget of lint dipped in a solution of one gramme of the bichloruret of mercury in thirty grammes of distilled water: a superficial eschar forms in about two hours; another pledget is requisite in a few cases, in which the eschar is not sufficiently well marked, after which the whole is covered by a large emollient poultice, and the eschar is soon detached. 3dly. When the bubo is in a state of induration, resolvent ointments, discutient plasters, and a gentle and continuous compression by means of hot bricks, are to be had recourse to."—*Ibid.*

20. "*Cure of the Wounds caused by Blisters.* (Seidlitz.)—The wounds made by blisters are generally soon healed. When suppuration takes place, M. Seidlitz covers them, after the evacuation of the serum, with a layer of wadding, as is done for the dressing of burns, and he leaves the layer so applied until the wound is entirely cured."—*Ibid.*

21. "*Treatment of Menorrhagia.*—Dr. Ditterich, of Munich, recommends the internal use of nitrate of silver as a remedy for this troublesome and obstinate complaint, as well as for the leucorrhœa which is present during the intervals and the nervous symptoms. His prescription is,

℞.—Nit. argenti gr. iij.
Aquæ distill. ʒij. solve.

Of this solution ten drops are to be taken two or three times daily, and gradually increased to fifteen drops. The author affirms that the use of this solution, for a period of from four to six weeks, will perform a certain cure. After the lapse of about ten days, the leucorrhœa diminishes, and by the second menstrual period, the catamenial secretion is reduced to the proper quantity, and the nervous symptoms disappear. Koph has also recommended the nitrate of silver for the same disease, in doses of 1-10th to 1-12th of a grain every two hours."—*Northern Journal of Med.*, Dec., 1845, from *Neues Repert*, 1845.

22. "*Vegetable Therapeutics.*—Among the latest French novelties, we find it stated that a Dr. Robert, probably owing to a want of patients in the animal kingdom, has taken up the medical treatment of vegetables! Many diseased

trees in the Champs-Elysées have been placed under the care of M. Robert, and some which had been given up have perfectly recovered under the cataplasms of this ingenious Frenchman. *Où diable la Médecine va-t-elle se nicher?"—Lond. Med. Gaz.*, Jan. 16, 1846.

23. "*Staphilœmatoma.*—Dr. Yitz has observed three cases of this disease of the palate, which has been called *hæmatoma palati.* It consists in the formation of one or several bladders, filled with fluid blood, and covered by the epithelium of the mucous membrane of the palate or uvula. If punctured, fluid blood is discharged. It causes no other inconvenience than a slight pain in swallowing or chewing, according to its situation. If not punctured, the contents are either absorbed or the tumor breaks, leaving a superficial, slightly painful ulcer, which heals in a few days. The causes are not known. One patient asserts that he has suffered from it once every year. A slight difficulty in eating sometimes precedes its appearance. It is about the size of a hazel nut, and, in the cases observed, was always accompanied by aphonia, which was invariably cured by puncturing the tumor."—*Med. Times, July* 14, 1845.

24. "*Treatment of Scabies by the Veratria Alba.*—The following formula is extolled in the *Annales de Thérapeutique.*

℞.—Powdered root of white hellebore 60 grammes= ℥ xv.
Black soap 25—30 grammes= ℥ vii.

Hot water sufficient to make an ointment. All parts of the body affected with the eruption are to be rubbed once a day with this compound; after a few frictions, the patient complains of heat in parts which have been exposed to the ointment, and the itching of the scabies has ceased. One or two common warm baths are now necessary. If fresh vesicles should show themselves, they are to be similarly attended to."—*Ranking's Retrospect, Jan.*, 1846.

25. "*Fumes of Belladonna in Hæmoptysis.*—M. Schroeder speaks highly of this herb in hæmoptysis, used in the following manner:—The dried leaves are cut into small pieces, and about two drachms are then thrown upon burning coals, so that the patient may be enabled to inspire the fumes as they arise. In all the cases of hæmoptysis in which this simple expedient was tried, the author found it effectual in arresting the hemorrhage, generally at the same time allaying the cough, and producing a feeling of relief in the chest. It is singular that inhalation of the steam from a decoction of these leaves, or their internal administration, does not appear to have an equally beneficial effect."—*Ib.*, from *Annal. Univ.*

26. "*New Method of applying Ligatures to Nævi.*—Mr. Christopherson advises the following modification of the usual method of performing this operation. The plan, which is sufficiently simple, is thus described:—'Take a piece of strong silk or ligature, well waxed, and three quarters of a yard in length. Thread a curved needle with the same, leaving the ends equal, and pass it double under the centre of the part requiring to be removed. This done, cut the ligature in the middle, leaving the needle attached to the inferior portion, which is then passed through the skin immediately below the part to be strangulated. Thread the needle with the superior portion of the ligature, and pass it through the skin in an opposite direction, immediately above the part to be strangulated, and remove the needle.' In the next place, 'tie as tightly as possible the two ends of the loop which includes the inferior half of the tumor, and strangulate that portion of the part to be removed. The four ends of the ligature remaining are now to be tied tightly and alternately, the one to the other, and the operation is complete. The whole mass being thus enclosed in a double circle by the ligature, both within and without, must be effectually strangulated.'

"The advantages said to be possessed by this method are: that it is simple and quickly performed; that it leaves less deformity than the common method; that it can be applied in situations in which other means cannot be conveniently employed: and thus the strangulation must necessarily be complete."—*Lancet, June* 14, 1845.

27. "*Paralysis of the Portia Dura produced by Tobacco Smoking.*—Mr. Smith, of Sheffield, records two cases in the *Provincial Journal*, of this affection. He attributes the paralysis to the sedative action of the tobacco-smoke, and remarks that:—

"He is not aware of any case of paralysis of the portia dura on record having been attributed to the use of tobacco; nor, indeed, does he remember seeing an account of any case of paralysis which has been imputed to this cause. Still he thinks a result of this kind is quite in keeping with what we know of the physiological properties of the oil of tobacco, and is an effect which *à priori* reasoning upon them would lead us to expect. It is reasonable to suppose, that the practice of volatilizing so powerful a sedative poison, and applying its vapor to the lining membrane of the air-passages, should produce derangement of the nervous system, varying in intensity according to its greater or less dilution with atmospheric air; and that, therefore, on the nervous fibrils proceeding from the mucous membrane of the mouth, a situation where the vapor must be comparatively concentrated, the effect should be most considerable. The sedative operation of tobacco has also been found by experiment to be exerted chiefly on the motor system; and it is quite in accordance with our knowledge of the nature of reflex action, that an impression of any sort, although immediately acting, as in this case, upon a sensory nerve, should be conveyed through its medium to the corresponding motor nerve."—*Lancet, Nov.* 15, 1845.

TOXICOLOGY.

28. "*Poisoning with Arsenic.*—MM. Maresk and ados have ascertained that when a pregnant woman is poisoned with arsenic, the arsenic may be transmitted to the fœtus. In an official investigation of a case of this kind, they discovered traces of the poison in a fœtus at the fourth month. The uterus and the placenta also contained arsenic, but the placenta contained a proportionally larger quantity than the fœtus. The liquor amnii contained no arsenic; at least the quantity, if any, was inappreciable.—*Bulletin de la Soc. de Med. de Gand.*

"'Two families named Foucaux and Brument resided near Normanville in France. A criminal intercourse existed between Brument and Foucaux's wife, and shortly after a quarrel growing out of this circumstance, Foucaux and Brument's wife died within a few days of each other, having both been affected with symptoms of poisoning.

"'The bodies were exhumed, and the analysis of the intestines gave the same result in each—viz., arsenic and antimony were detected in both instances, the quantity of arsenic greatly preponderating. The medical witnesses, though they had no doubt the deceased persons were poisoned, expressed their astonishment at the simultaneous presence of those two substances, inasmuch as the physicians who had attended the victims stated that they had administered no antimony. During the investigation, however, it was ascertained that the two prisoners had several times administered to their victims the substance known as the "Medicine of Leroy."*

"'This circumstance at once accounted for the mixture of antimony and arsenic, but also gave rise to the following questions:—"Do antimonial preparations contain arsenic. And if so, could the arsenic detected in those cases be derived from that source?

"'In the present instance the answer to those questions was clear. The "Medicine of Leroy" consists entirely of antimony, senna, and white wine. It is true that arsenic exists in very minute quantities in most specimens of antimony, but apothecaries are expressly enjoined before they vend or use antimony for any pharmaceutical purpose to ascertain the amount of arsenic in the antimony sold or used. Furthermore, granting that the antimony employed to prepare the "Medicine of Leroy" contained arsenic, the quantity of arsenic present would have been very small compared to the quantity of antimony, while the analysis on the contrary detected a great quantity of arsenic, and very little antimony.

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* It is vulgarly believed that the "Medicine of Leroy" enjoys the property of causing traces of poisoning to disappear.

"'The fact of poisoning could not then be doubted, especially as the testimony of the physicians who had attended the deceased quite coincided with the chemical evidence.'"—*Gazette Médicale de Paris.*

MISCELLANEA.

29. "*The Medical Congress at Paris.*—The importance of the Medical Congress which has just taken place in Paris, is such as to render it imperative on us to present our readers with a detailed account of its doings and proceedings, and this we now propose doing.

"The medical profession in France, although organized in a much more efficient and liberal manner than in this country, presents still many anomalies and imperfections, which have given rise to much discussion during the last few years. The necessity of extensive modification has, indeed, been so deeply and so extensively admitted, that the Minister of Public Instruction promised last session to bring before the Chamber of Deputies in 1846, a bill calculated to remedy the evils complained of. As with ourselves, there is so much difference of opinion respecting the nature of the reforms that are required, that it appeared probable to most of those who took any interest in the question, that unless some means were previously taken by the profession to discuss the subject, and to embody in a series of propositions the results thus arrived at, the measures adopted in the parliamentary bill would most likely please no party. Under these circumstances, a few months ago, the editor of the leading medical journal, 'The Gazette des Hôpitaux, or French Lancet,' proposed that a medical congress, composed of delegates from all parts of France, should meet in Paris, prior to the opening of the Chamber of Deputies, and discuss the entire subject of medical reform. This idea was at once responded to with enthusiasm. On the 14th of last June, a meeting of the editors of the Parisian medical journals took place, the convocation of a national congress was unanimously approved of, and it was decided that publicity should be given to the plan, and that a request should be addressed to all the medical, pharmaceutical, and veterinary societies in France, to send delegates to a preliminary meeting to be held on the 2d of August. At this preliminary meeting, composed of delegates from the scientific societies, and of the editors of the medical journals, a committee of fifteen members, representing the three sections of medicine, pharmacy, and veterinary medicine, was appointed and empowered to make every necessary arrangement for the organization and convocation of the congress. The powers thus granted to the committee were strictly limited to the above points.

"The first step adopted by the preliminary committee was to give as extensive publicity as possible to the decision of the meeting of the 2d of August, respecting the congress. The members of the medical profession were addressed through the political journals, which generously gave every possible assistance, and through the medical and scientific societies; whilst, on the other hand, direct communications were made to the faculties, to the medical schools, and to the most eminent men in the profession. More than three thousand five hundred collective or individual adhesions were the immediate result of these measures, and the warmest sympathy was everywhere expressed. Of these, two thousand five hundred were doctors in medicine, nine hundred 'pharmaciens' (chemists and druggists), and the remainder veterinary practitioners. The above figures may be said to represent the relative numbers of the members of the three professions in France.

The French laws which forbid associations even for scientific purposes, unless with the permission of the authorities, rendering the sanction of government indispensable, application was first made to M. de Salvandy, the Minister of Public Instruction, and to the Minister of Interior. Their support having been obtained, the necessary authorization was granted by the Minister of the Interior. M. de Salvandy, the minister of Public Instruction, entered warmly into the views of the committee, drew their attention to the most important question requiring elucidation, requested to be put into regular communication with the congress, and promised to defer the introduction of his medical bill until the congress had terminated its labors, in order that he might embody in it the results arrived at by that assembly. The sanction of the Minister of Commerce, under whose jurisdiction are chemists and druggists (pharmaciens), was likewise promptly and graciously given, as also that of the Minister of War, on his being requested to allow the army medical, pharmaceutical, and veterinary practitioners to become members of the congress, and to take a part in its discussions. As an additional proof of the cordial and enlightened co-operation of the public authorities, we may mention, that one of the largest and most commodious of the saloons in the Town Hall (Hôtel de Ville), was granted by the Prefect of the Seine for the use of the congress during its sittings, which were to last a fortnight.

"On the nomination of the preliminary committee, in August, it was entrusted with the drawing up of a code of rules, designed to regulate the meetings of the congress, which rules were to be discussed on its first assembling. When, however, the sanction of the public authorities was requested, the committee was enjoined to exhibit the laws by which the congress was to be governed, which laws, it was told, once approved of, must be considered definitive. It thus became evident that government would not allow so large a body to meet without knowing precisely what would be the nature of its organization, and the ends it purposed attaining; fearful, no doubt, lest it should be diverted from scientific to political purposes. The committee was therefore obliged to transgress its powers in this respect, and to draw up a series of regulations, which became binding on the part of the congress. This part of its duty, however, was accomplished in such a manner as not to offend any opinion, or afford room for discussion; the rules thus imposed on the congress merely relating to the division of the delegates sent to the Congress into three classes—medical, pharmaceutical, and veterinary; to the hours of meeting; to the mode in which the discussions should be carried on, &c.

"The 5th day of November was the day fixed for the first meeting of the congress. Between the epoch of its nomination and that day, the committee met sixty times, and an immense number of documents, relating to all the questions that were to be discussed in the congress, were received, and carefully analyzed. On the day appointed, several hundred delegates, deputed by the three branches of the profession, from every part of France, arrived in Paris, and the congress was formally opened at the Hôtel de Ville, under the presidence of M. Serres, the late president of the Academy of Sciences. But before we commence analyzing the proceedings of this important assembly, it is absolutely necessary that we should give a short account of the present organization of the medical profession in France. This, however, we shall do very briefly, referring to the essay now publishing on this subject, in the Lancet, by Dr. Henry Bennet, for further details.

"The medical profession in France, as far as medicine and surgery are concerned, constitutes part of the University of France, which is itself under the jurisdiction of the Minister of Public Instruction. The University of France is composed of five faculties, the faculty of theology, the faculty of sciences, the faculty of arts (letters), the faculty of law, and the faculty of medicine. Some of these faculties are multiple. Thus there are three distinct faculties of medicine, those of Paris, Montpelier, and Strasburg. The three faculties of medicine all present the same organization, with the exception that the one in Paris has a larger number of professors, and is more efficiently composed than the other two. They all examine and grant degrees. In addition, there are a number of secondary medical schools in the large provincial towns, the certificates of which are received for part of the curriculum, but which have no power to examine or to give diplomas. The degrees awarded by the faculties of medicine are those of doctor in medicine, doctor in surgery, and officer of health (officier de santé). The degrees of doctor in medicine and doctor in surgery are pretty much the same, the only difference being, that to obtain that of doctor in surgery the thesis *must* be on a surgical subject; whereas, for the degree of doctor in medicine, it may be indifferently either on a medical or on a surgical question. The degree in surgery, therefore, is scarcely ever taken, not by one in a hundred. The curriculum being precisely the same for both, and the doctors in medicine nearly all practising surgery and midwifery, as well as medicine, indeed everything that comes in their way, the distinction is not recognized either by the profession or by the public. The doctors are also obliged, previously to commencing their studies, to take out two university degrees, that of bachelor of arts in the faculty of arts, and bachelor of sciences in the faculty of sciences.

"The officers of health are a very inferior grade of practitioners, from whom no university degree is demanded, and whose medical education merely extends over a period of three years. They are generally ignorant men, of illiterate habits, and have no station among the educated classes of the community. Their degrees are partly granted by the faculties, but principally by travelling juries, formed of three professors from each faculty, who every year make a kind of circuit They are considered the bane of the profession, and certainly by their unequal competition with the regularly educated practitioners do much towards destroying professional profits, and degrading the profession. A very strong feeling against them exists, and there can scarcely be a doubt but that the grade will shortly be abolished.

"The chemists and druggists (pharmaciens) constitute a very different body from what they are with us. They alone are allowed to keep and sell medicinal preparations, unless there should be none residing within a reasonable distance of a doctor or officer of health, in which case the latter is allowed to keep and prepare medicines, but for his patients only. The pharmaciens are all graduates of the schools of Pharmacy of Paris, Montpelier, and Strasburg. To obtain their degree, they have to go through a three years' course of study at one of the above schools of pharmacy, which, although under the control of the university, are distinct from the faculties of medicine. By a recent decree, the degree of bachelor of arts (letters) will henceforth be demanded of all students previous to their entering at these schools, a measure which will entail upon them an eight or ten years' previous course of classical study. They are not allowed to sell anything but drugs, or to keep on their premises, or to retail, secret remedies, or any other formulæ but those which are contained in the codex, or for which they have received a prescription signed in full by a doctor or officer of health. They are thus restricted entirely by law, to the preparation of prescriptions of medical practitioners, of which, on the other hand, they have the monopoly. The veterinary schools are not under the jurisdiction of the university, but of the Minister of Commerce. The organization of the veterinary body is far from being as complete and as satisfactory as that of the medical and pharmaceutical.

"Such is the present state of the medical profession in France. Brief as is the above sketch, it will enable us to follow the Parisian congress in its interesting and important labors.

"*Opening of the Congress.* The deliberations of the congress were opened by a short but most energetic address from M. Serres, the president, of which the following is a summary:—

"'Gentlemen, and dear colleagues.—Social epochs present characters which distinguish them, and stamp their impress upon them.—The ruling character of the nineteenth century is, the tendency to perfecting the physical and moral welfare of man. Sciences, arts, private and general industry, everything tends towards this end; every one is carried along by this general movement, men as well as governments.—Among human sciences there is one which, for the last three thousand years, investigates the wants of humanity, and ever meditates upon them.—To this science humanity owes, in a great measure, the physical welfare which it now enjoys.—This science is medicine, the dominion of which embraces surgery, pharmacy, and the veterinary art. Thus it is that the medical family folds, as it were, within its arms, society in general.—It ploughs the waves with our vessels.—It accompanies our soldiers in the camp, and on the field of battle—it watches at the domestic fire-side, in hospitals, and in prisons.—Human vicissitudes meet it nearly everywhere, and everywhere they find it prepared to make the greatest sacrifices.—The more important, the more indispensable, the services which the medical body render to society, the more attentive a government should be to the institutions which regulate it.—Thence the anxiety of our government to improve the laws which govern medical institutions.—It is our duty to acquire as much information as possible, in order that we may be of the greatest possible utility to our fellow-creatures.—It is the duty of the government to protect us in the application of the knowledge we have thus acquired, and to see that all the members of the social body are benefited by it.—One of our great men has said, I know nothing in the world more contemptible than a cowardly soldier, or than an ignorant medical man; the first is contemptible, because he compromises the fate of his country in the day of danger; the second, because he compromises, hourly, the life and welfare of his fellow-creatures.—Thanks be to Heaven there is not a cowardly soldier in France, and government is under the obligation to society to render it *impossible* that there should be such a person as an ignorant medical practitioner.'

"At the conclusion of M. Serres' address, presidents, vice-presidents, and committees for each of the three sections of the congress were elected. The preliminary committee had drawn up lists of those whom they thought they could best recommend to fill these posts, which lists were read to the assembled members of the congress, and adopted by ballot, with but very slight alteration. This plan was adopted in order to save time and prevent confusion. The system subsequently pursued was as follows;—the committee of each section first met and discussed a number of questions, comprehending all the points which it had been thought expedient for the congress to examine, adopting a report thereon. The reports thus framed in committee were brought before general meetings of the section to which they referred, and were there finally discussed and amended.

"The following is a brief synopsis of the results arrived at by the congress, the labors of which extended from the 4th to the 14th of November:—

"The division of the teaching of the medical sciences between the three faculties and the preparatory schools is advantageous. (The utility of the preparatory or secondary medical schools has been much questioned of late. By this resolution their continuance has received the sanction of the congress, but it is also considered advisable that they should remain strictly preparatory schools, and only be entrusted with the first period of the education of students, all of whom ought to complete their studies in the faculties.)

"The establishment of chairs of history and medical philosophy in the three faculties is advisable; also that of one on pathological anatomy in the faculty of Montpelier. (These chairs are at present wanting.)

The Paris hospitals devoted to certain special diseases ought to be made the theatre of official clinical instruction. (M. Lisfranc proposed, as an amendment, that all hospital physicians and surgeons should be obliged to give clinical lectures on the patients entrusted to their charge. This amendment, however, was negatived, on the plea that it would be too great an interference with individual liberty; but the wish was expressed that all medical officers of all hospitals should be at liberty to lecture on their patients independently of any special authorization. They are now obliged to apply for the sanction of the civil authorities of the hospital, by whom, however, it is never refused.)

"The number of faculties now existing is sufficient, being neither too considerable nor too small. (It had been proposed by some to abolish the faculties of Montpelier and of Strasburg, transferring them into secondary schools.)

"The secondary schools should be made more efficient, and connected as intimately as possible with the medical and surgical departments of the local hospitals. They ought also to be withdrawn from the hands of the local authorities, by whom they are now regulated, and placed under the jurisdiction of the university. Students educated at them should be obliged to pass an examination at the close of the second year's studies, previous to being allowed to commence the third.

"All legally qualified members of the medical body in France should have the right by law to teach the medico-chirurgical sciences, and government ought, in Paris and the principal provincial towns, to place at the disposal of medical practitioners thus wishing to teach any branch of medicine, an appropriate locality, and afford them every assistance. At the same time, lectures thus given are not to interfere with the official instruction given at the faculties and secondary schools, nor to constitute a title towards obtaining university degrees. In a word, they are merely to represent opinions and doctrines.

"The authorities are requested to insert in the new medical law a special article, favoring in every possible way clinical teaching by physicians and surgeons to hospitals, both in the metropolis and in the provinces, and giving them the greatest latitude on this score.

"The nomination of professors in the faculties of medicine, in the special schools of medicine, and in the veterinary schools, ought always to take place by concours. (The concours has adversaries in France, and was warmly attacked by them in the congress, but without success.)

"The functions of professors ought to be temporary, and to cease at the age of sixty-five. The professors should then become honorary, and take a part in the board-meetings, deliberations, concours, and administrative labors of the faculties and secondary schools, but without participating in the examinations. They should enjoy their entire salary until the age of seventy, and then retire.

"The mechanism adopted for the concours in the faculties ought also to be adopted in the secondary medical schools—that is, one-third of the judges should be taken from among the professors, one-third from the medical academies or societies, and one-third from practising members of the profession.

"The existing institution of assistant professors in the faculties (*aggregés*), appointed by concours, is approved of, and it is suggested that their salaries should be increased.

"The preliminary literary guarantees now demanded of pupils who enter the medical profession are deemed sufficient, but not too onerous. These guarantees are a bachelor's degree in letters (arts), and a bachelor's degree in sciences. They presuppose a classical and scientific education, of ten years' duration.

"It is thought expedient to prolong the duration of medical studies from four years to five, to exact an examination at the end of each year, and to oblige all students to serve for at least a year as dressers in some hospital.

"The admission and final examinations of doctors should be entrusted to a jury formed partly of professors and regular examiners, and partly of practitioners. The examinations of students should be made even still more practical than they now are. In addition to the five examinations already exacted, a sixth should be added on the subjects treated of in the new professorships of medical philosophy and history.

"Such are the views of the congress with reference to that portion of the medical organization of France which relates to teaching and examining pupils, and to receiving candidates. The results arrived at with respect to questions relating to the exercise of the medical profession are still more important.

"The first question discussed was that of the existence of two orders of medical practitioners. The expediency of having an inferior grade of practitioners was denied, and the institution of officers of health was declared illegitimate and dangerous. This opinion was clearly announced in the following resolution, which was carried unanimously:—That it is to be hoped that in any future medical law one class of medical practitioners only will be recognized, that of doctors in medicine. That should such a decision be come to, existing officers of health might be allowed, during five years, to offer themselves as candidates for the M.D. degree at any of the faculties.

"It was also decided at the same time, that the institution of district medical officers, to take care of the poor, was not necessary, and would be an attack on the liberty of the medical body. (This decision of the congress was arrived at in opposition to the wishes generally expressed in the documents received from the provinces.)

"It was proposed, that debts for medical and surgical services should be recoverable by law during a period of five years from the time they are contracted, instead of during one year only, as at present.

"The responsibility of a medical practitioner in a medical case cannot be estimated by non-medical persons. In any case, therefore, in which his responsibility is called into question, the penal articles of the code ought only to be applied after a decision has been obtained from a medical jury.

"In no case ought a medical practitioner to be obliged to give evidence against his patients, or to reveal to the authorities facts which have become known to him in the exercise of his profession.

"The exercise of medical practice should be confined strictly to persons qualified by law, and any infringement should be visited by efficacious and energetic punishment. The treatment of sick persons by a non-qualified person ought to be considered penal, even should his prescriptions have been signed by a qualified practitioner.

"Councils of discipline should be organized in different parts of the country, and endowed with sufficient power to render their jurisdiction efficacious.

"Foreign practitioners ought not to be admitted to practice until they have given to government the same guarantees that are demanded of native practitioners. Political refugees, however, should be exempted from all the expenses of examination and admission to the M.D. degree.

"It would be inexpedient, unjust, and impossible, to limit the number of medical practitioners. The medical profession ought to remain, above all others, a liberal profession.

"It was decided, that all advertisements, by means of newspapers, placards, prospectuses, pamphlets, or other modes of publicity, with a view to announce the arrival of a medical practitioner in a locality, his address, a particular means of treatment, or the sale of any medicinal preparation, ought to be forbidden, under a severe penalty. That by the word medicinal preparation should be understood all simple and compound substances or preparations, announced, sold, or distributed, as possessing medicinal properties.

"That none but 'pharmaciens' should be allowed to prepare, to sell, or even to distribute gratuitously, any pharmaceutical preparation. That druggists should be allowed to trade wholesale in drugs, but not to sell them by pharmaceutical weight.

"That there should be no exception to the foregoing clause, except in favor of persons now trading as 'herborists,' who might still be allowed to sell non-poisonous and indigenous medicinal plants; but that in future no one should be allowed to commence business as a 'herborist.'

"That hospitals and other charitable or religious communities should only be allowed to have a pharmacy for their own particular use, and should not sell nor distribute out of doors any medicinal substances.

"That the existing laws which forbid the sale of secret remedies should be enforced.

"That no pharmacien should be allowed to keep two establishments.

"That no person should unite in his own person the profession of medical practitioner and that of pharmacien.

"That medical practitioners not residing within a certain reasonable distance of a legally qualified pharmacien, shall be allowed to furnish medicines to their patients, provided the residence of such patients should be similarly situated in that respect; but that on a pharmacien settling within the prescribed limits, the privilege should cease.

"That a public or private partnership or connection between a medical practitioner and a pharmacien should be forbidden under a severe penalty. That all collusion between medical practitioners and persons foreign to the healing art should likewise be severely forbidden.

"That each year the faculties and preparatory schools should choose, by means of the concours, from amongst the pupils who have studied during two years, a certain number to whom scholarships would be given, in order to enable them to continue their studies at the faculties.

"That government should establish, in the localities where mineral waters exist, asylums or hospitals for the use of the poor. That government should take proper measures to ensure the admission of pauper patients from rural districts into the hospitals of the department or district. That government should take necessary measures in order to ensure the reception into the hospitals of travelling poor provided with passports of indigence, should they fall ill on their journey. (These passports entitle those to whom they are granted to a small sum per mile.)

"That in the rural parishes, as well as in more important parishes, there should be dispensaries established in order to furnish to the poor medicinal and pharmaceutical remedies, the medical officers of which might be entrusted with the registration of births and deaths in small localities.

"That the physicians and surgeons to hospitals and other charitable institutions should always form a part, in proper proportion, of the administrative Board.

"That each year the physicians, surgeons and pharmaciens of all the hospitals and establishments of charity should be called upon to meet, and to make to the competent authorities a report on the imperfections existing in their establishment, and on the ameliorations required. That copies of these reports should be sent to the heads of the administration to which the charity belongs, to the Minister of the Interior, and to the Prefects of the Departments.

"That all physicians and surgeons to hospitals should be named by concours, and for a period of fifteen years only, during five years of which they should be assistants, and during the remaining ten, heads; that after the expiration of the fifteen years they should become honorary, but with the power of again contesting the appointment should they think proper. That no hospital physician nor surgeon should have more than sixty beds under his care.

"That the physicians connected with the mineral watering towns should be named by concours and submitted to a regular gradation in rank. (At each of the French towns where there are mineral waters there is a physician appointed by government to superintend their administration. These appointments are lucrative, and at present in the uncontrolled gift of government.)

"That the concours should be adopted for the nomination to all appointments to which it can be applied; that when the concours cannot be applied. certain rules should be followed as much as possible,—the anterior claims of candidates, their previous successes in concours, their scientific labors, their previous services in scientific establishments, &c., being taken into consideration.

"That the prerogatives and rank of the medical officers of the army should be modified, so as to render their position more in unison with the real importance of the functions which they fulfil.

"That no female should exercise the duties of midwife unless she has shown proof of having received a sufficient amount of primary instruction, and of morality of conduct; and unless she has studied this department of medicine during two years at least. The midwives received in the faculties, and in the preparatory schools, or by a medical committee, in towns where there is a midwifery charity affording sufficient means of instruction, ought to undergo two examinations; one on the theory, the other on the practice of midwifery. Midwives should not be allowed to practise any serious obstetric operation, or to attend in cases of disease. The only operations which they ought to be permitted to perform are, bleeding and vaccination.

"In conclusion, the congress, instituted in a spirit of concord, wished to finish its labors in a spirit of union, and consequently adopted, as a last proposition, the following resolutions:—

"That free medical associations should be formed wherever it is possible, with the double view of perfecting science and of organizing provident institutions.

"That these associations, formed in the chief town of each arrondissement, should, by delegates, constitute societies in the chief towns of each department, which would, lastly, centralize in Paris.

"The above propositions embody the results at which the Parisian congress has arrived, after the most searching investigations and discussions, carried on, firstly, in the committees, and secondly, in the public assemblies. All these discussions and deliberations took place publicly."

2.

American Intelligence and Editorial.

Obituary.—Died at Salisbury, Connecticut, April 19th, 1846, Luther Ticknor, M.D., President of the Connecticut State Medical Society, in the 56th year of his age.

In this announcement some of our readers will recognize the name of one who was endeared to them by many excellent and noble qualities, and who filled, for nearly thirty years, a wide space in the medical profession of the State of Connecticut.

Dr. Ticknor was born in Jericho, in the State of Vermont, March 9th, 1790. At the age of fifteen, he lost his father, who was accidentally killed by the falling of a tree. The oldest brother, Dr. B. Ticknor, now of the U. S. Navy, having left home, the whole charge of a family of eight persons, including six younger brothers and a sister, devolved on the subject of our notice; and although in indigent circumstances, he kept them together and furnished them, by his own personal exertions, the means of support, for the space of three years. At the end of that time the family were broken up; two of his brothers and sister, he placed at school, and he himself engaged in laboring on a farm for two years longer. He then commenced the study of medicine with the late James R. Dodge of Salisbury, Connecticut, and supported himself and the three other members of the family above mentioned, by teaching school a part of the year. One of these brothers was the late lamented Caleb Ticknor, M.D., of New York, whose early loss to science cannot be sufficiently deplored.

Dr. Ticknor was endowed by nature with uncommon intellectual vigor; great energy of character; indomitable perseverance; and a courage that quailed at no obstacles, however great, or apparently insurmountable. He loved his kind with pure and disinterested affection; his benevolence of heart knew no bounds, and his life corresponded to the generous impulses of his nature; he wore himself out in serving his fellow men, and doing good. It is not too much to say, that few, if any physicians, have lived in our country, who maintained in the circle in which they moved, more respect and confidence from their professional brethren, or a higher character with the public as a physician and a man.

Dr. Ticknor was emphatically a self-made man. He had raised himself, by his sole unaided exertions, from an humble sphere of life, and he delighted in looking back and recounting the difficulties he had conquered. With his own hand, he had carved out his path to distinction and eminence, and he felt an honest pride in contemplating the ruggedness of the road along which he had travelled, and in lending a helping hand to those entering upon the same path. No physician in the State of Connecticut, it is believed, has performed a greater amount of gratuitous medical services, or aided more indigent young men in obtaining a medical education, than Dr. Ticknor; and in no instance scarcely, has it been known, that a student, who enjoyed the benefits of his instruction, failed to make a highly successful and useful practitioner.

It is difficult to say whether the excellent qualities of his head or his heart predominated. There certainly were combined in him, extraordinary intellectual and moral endowments with great physical energies, a constitution which braved all manner of hardships and exposure, incident to country practice, for nearly the third of a century. If ever an individual lived, who was totally regardless of his own health and comfort, and wholly absorbed in ministering to the necessities of others, that person was Luther Ticknor. His daily life was a perpetual and standing refutation of the maxim, that there is no disinterested benevolence in the world. The question, whether a patient was able to make any remuneration for his services, never even entered into his calculations—indeed, it is believed that he would sooner have attended the poor than the rich; his sympathies, feelings, instincts, all seemed to draw him that way; and if his indignation was ever roused, it was, when he heard of physicians who converted their art into a money-making trade, and speculated upon the miseries and sufferings of their fellow men. Hence, it was no part of Dr. Ticknor's ambition to accumulate wealth; if fees were offered him, he took them if he needed them, at the time; if not, he would as generally decline, or postpone accepting anything till some future occasion. There was indeed a nobleness, a generosity, a greatness in his nature, which commanded admiration—they were stamped in indelible characters on his dignified, manly form and features; and endeared him to the entire community, as few men have the fortune to be endeared to their most intimate friends. He was truly one of nature's noblemen—a true-hearted, ingenuous, trustworthy man, of classical and heroic stamp, who conferred not only honor and dignity on his profession, but on human nature itself. But, if he loved and honored his profession, as one of the most dignified and useful callings, his profession also loved him; and it is believed that there was no office of honor or dignity, within their gift, which they did not again and again urge him to accept. For many years he officiated most acceptably as one of the examiners of Yale College, and at the time of his death, he held the office of President of the "*Medical Society of the State of Connecticut.*"

The most prominent traits in the character of Dr. Ticknor, were strong common sense; solidity of judgment; great powers of observation and discrimination; and a memory the most retentive we have ever known. Indeed, he was endowed with a native strength of understanding, which enabled him to grapple successfully with any subject, however intricate or abstruse. To this were united an originality of thought,—a felicity of expression,—a command of language, rarely to be met with in habitual debaters; so that he had few equals in conversation, as there were few more profitable or agreeable companions. As a medical practitioner, Dr. Ticknor had few, if any superiors. His mind was eminently of a practical cast, discriminating and well-balanced. He was no mere theorist. He had no hobbies. He was no slave to prejudice. Hypothesis had no charms for him. He was a disciple of the Hippocratic school,—a true and simple observer of nature; whose laws he first aimed to discover, and then to act in accordance with them. His highest ambition, accordingly, was to be the "SERVANT AND INTER-

PRETER OF NATURE." He never boasted of having arrested or cured a disease; but believing that the Creator himself had perfected all the arrangements for that end, he considered it his sole business to give them full play. To this end, he adapted medicinal agents and hygienic measures with wonderful skill and judgment, and the result was an eminent degree of success in the treatment of disease. But although great as a physician, he was something more;—in him, the friend and the physician were combined; his affection, good sense, and sympathy poured into the afflicted the oil of comfort; he soothed the pangs of woe; he mitigated their distress; he found out something in the wise dispensations of Providence that he carried home to the bosom of affliction. Hence it was that he was looked on as a guardian angel; his assiduity made him appear as a sufferer with the family—they viewed him as one of themselves—sympathy united him to them; he acquired new ties, new affections; he mourned with them, and his philosophy pointed out new sources of consolation—he was beloved—he was everything that heaven in kindness deputes, to soften and dissipate human misery. In short, Dr. Ticknor attained that "highest style of man"—he was a Christian.

We do not wish to overcharge the picture. It is true, he was our friend and brother. But we describe him as we have known him for more than thirty years, and as he is known to the profession throughout Connecticut. There, on the field of his usefulness and his fame, and where he was best known, the truthfulness of our sketch will be felt and acknowledged; there, where he fell, a martyr to his profession, in the full career of his success, and the maturity of age and experience, his memory will ever live in the hearts of those who love to contemplate examples of true heroism,—of disinterested benevolence,—of honorable usefulness.

Dr. T. was the friend of progress and improvement in every department of life, and especially so in matters relating to the medical profession. When he looked abroad and saw every other class of men rapidly on the advance, and emulously engaged in extending the boundaries of their future usefulness, he could not remain an idle spectator of the scene; but zealously embarking in the same noble cause, he exerted all his influence in raising the standard of excellence in the profession which he loved, and which he pursued with ardent and disinterested zeal. Accordingly, no sooner had he learned that a National Medical Convention had been proposed for the accomplishment of these very objects, than he immediately recommended the plan in an able letter published in our Journal for Nov., 1845,—and we believe that by this letter an additional impulse was given, which seems destined to crown the enterprise with success. He never paused to calculate what the consequences of a particular measure would be to himself, or how it would affect his own personal or pecuniary interests; he looked to the "greatest good of the greatest number." He did not pause to weigh the chances of success or failure in such a Convention, as was contemplated; he looked only at the objects in view, and deeming them important, he gave to the project the entire weight of his name, and his influence. The last official act of his life was to convene the Medical Society of the State at New Haven on the 28th of April, for the purpose of electing delegates to the Convention.

The foundation of Dr. Ticknor's death was laid in the incessant fatigue and watching to which he was exposed during the last two months of his life. For forty days and nights he scarcely enjoyed an hour's rest undisturbed by calls, and but few times during that whole period were his clothes removed for the purpose of repose and sleep. Just one week previous to his death he was attacked with a violent chill, which was the precursor of a severe attack of bilious pneumonia, of a highly congestive, typhoid type, which ran its course unchecked by the means employed, and which terminated his valuable life on the evening of the 19th of April, 1846.

It was our melancholy lot to stand by the bed-side of the deceased during the last two days of his life, and witness the progress of a disease which had passed beyond the control of human art; and we shall not soon forget the perfect composure, fortitude, and resignation, which he manifested in the midst of extreme suffering and distress, and the unflinching calmness with which, in the full possession of his reason, he resigned his spirit into the bosom of his Creator.

It was also our fortune to be present on his funeral occasion, and there we witnessed a scene which will never pass from memory, while memory lasts. The shops and stores of a thriving village all closed upon a week-day, as upon the Sabbath; a congregation of people, larger than was scarcely ever known to assemble in that place on any occasion, melted to tears; sobs bursting forth on every side; in short, one common feeling seemed to prevail, and that was one of deep, uncontrollable, and absorbing grief.

Thus passed from the earth a man, who was indeed A MAN,—whose character had as few blemishes in it as may be permitted to the natural weaknesses of humanity, if not as many excellences as our natures are capable of attaining in this imperfect state of being. It is consoling to reflect that he has left an example worthy of imitation—a reputation unsullied by a single blot—a name which will never be mentioned but with tears of gratitude and affection by thousands now living. These constitute a rich legacy which may well be treasured by his friends, and handed down as an heir-loom to posterity.

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NATIONAL CONVENTION.—Our readers will have observed that some of the preceding numbers of our Journal have contained remarks relating to the present state of medical education in this country, and especially as connected with a proposed National Medical Convention. In conceding this liberty to the respective writers, we believed we were only extending that editorial courtesy which we should ourselves expect to have granted us, under like circumstances. In so doing, however, we have avoided making ourselves responsible for individual* views and opinions, and, indeed, we have thought it proper to state, formally and explicitly, that we did not assume such responsibility for anything in the Journal, except what came from our pen. With this understanding we have given free latitude to discussion on a variety of subjects, and allowed opinions to be advanced sometimes not in accordance with our own; believing that such a course was best calculated to satisfy our readers, and advance the interests of truth. With regard to the expediency of holding a National Medical Convention, as suggested by the Medical Society of the State of New York, we have, on different occasions, expressed ourselves as favorably disposed; in common, we believe, with the whole medical press of the country.

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* In a recent letter from Dr Davis, we have the following explanation on this point: "Concerning the articles which I have furnished for your journal, I will only say, what is apparent to all, that they had no more connection with any committee appointed by the N. Y. State Medical Society, than any other article contained in the same journal. It was, indeed, to prevent any such mistake, that the articles were only signed with the initials of my name, and wherever the committee was in any way referred to, it was uniformly spoken of as separate from the writer himself. For those articles, with all their faults, I alone am responsible."

We believed that the time had arrived when a national association might be successfully founded, which would be productive of benefits to science and to our common profession, for a long time to come. We thought, and still think, that such an organization may be made extremely useful in this country, where we have nothing to hope from national or State legislation, serving, as it would, for the interchange of ideas, for communicating the results of individual observation and experience, suppressing quackery, encouraging scientific inquiries, and collecting and diffusing medical knowledge. Such an association, as has been well observed, if well organized and judiciously managed, would probably do more in furtherance of the progress of science and to raise the standard of our profession, than any legislative enactments which we can ever hope to procure, perhaps more than legislation could do, if its action were placed entirely at our disposal, as it would serve not only to develope and cultivate medical science and literature, but would give to them a nationality of character, which, as Americans, we ought, in justice to ourselves, to consider.*

With such views, while we have favored the plan of forming a general association, by means of a national convention of medical men, to assemble in accordance with an invitation from our State Society; at the same time, we have expressed our doubts, whether any common standard of qualification for graduation could be agreed upon by the different colleges, or that it would be even expedient to attempt it; although we have supposed that a foundation might be laid for future concerted action, if deemed expedient. It seems certainly desirable that there should exist a mutual and friendly understanding between the different medical schools and societies of the country, in order to prepare the way for future reforms, if found necessary; and this, perhaps, can be brought about in no way so successfully, as by meeting together, forming acquaintances, and conferring orally on matters relating to our common interests. We had supposed, we repeat, that the time had arrived when there might, at least, be an attempt made, especially in some of the older and wealthier States, to fix on some standard of qualification *preparatory* to the study of medicine, as a competent knowledge of the English and Latin languages, and the elements of Natural Philosophy—that perhaps the period of medical study might, with advantage, be extended from three to four years, that the credit system might be abolished in our medical schools, and that the lecture terms might be extended to five months.

These are questions which may very properly be discussed in such a convention, and there are others of a similar kind, which would properly come under consideration. The profession in this country is too isolated, too much broken into fragments; its influence is greatly weakened in consequence of the want of some common bond, or cementing medium; individual interests are bound up in collective interests, which can only be successfully promoted by harmony, union, and co-operation; and though reforms, like *charity*, should begin at home, they cannot be carried out to the desired extent, so as to tell upon erroneous public opinion, and regulate the pressure from without, under which we are all groaning, except by combined, systematic, and organized efforts. But in advancing these measures, we should not forget the importance of cultivating a profound respect for our own private and professional characters; maintaining, with inflexible constancy, the principles of integrity and honor; performing with diligence and cheerfulness, the daily and hourly duties required of us, and aiming with persevering industry, to adorn the profession to which we belong, and increase its usefulness, by making constant additions to our own knowledge, and the general resources of our art.

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* See Buffalo Med. and Surg. Journal for January, 1846.

The recent valedictory address of Professor Paine is occupied chiefly with the discussion of the subject of this proposed convention, which he handles with severity, dwelling at some length on the observations of our correspondent Dr. Davis, as contained in the number of our Journal for November, 1845. We should have preferred to have seen the matter discussed simply on its own merits, apart from other considerations; but we have no particular objections to offer, although a different course has been pursued. But, notwithstanding we are so unfortunate as to differ somewhat in opinion with Prof. P. on this subject, our feelings are not particularly enlisted on one side or the other; we have looked upon the project as an experiment, which would probably eventuate in good results, especially if well managed and judiciously carried out. But to accomplish the greatest amount of good, and to carry out to their full extent the objects for which it was called together, it should undoubtedly represent fairly the different States or sections of the Union, and no particular State, city, or locality, have an undue and preponderating influence.

With respect to the particular passages quoted by Prof. P. from the remarks of Dr. Davis in our November number, we cannot say that we entirely approve their spirit, or stand ready to endorse them in their full extent, although we believe they were well intended, and honestly entertained by the writer. The defects in our present system of medical education are more obvious than easy to remedy; they are, in a measure, incidental to the circumstances of our country; and while all should be willing to acknowledge the existence of imperfections, and labor for their removal, we should be careful not to exaggerate such as really do exist. For example, as to the frequency of *routine* practice, of which Dr. D. speaks, we think the sketch too highly colored. So far as we have observed, American physicians are generally in the habit of closely investigating the seat and character of disease—of studying its pathology—using careful discrimination in diagnosis—and skilfully adapting their remedies to the particular indications to be met. We have found, it is true, great diversity in attainments, in skill, in tact, and experience; but we have noticed the same in all other pursuits and callings; and we are inclined to think that there is very little of *routine practice*, strictly so called, among regularly educated physicians in our country; except, indeed, it be among homeopaths,—with them it is all *routine*, and can be nothing else. Indeed we have often been surprised to witness the skill and judgment displayed by physicians in remote, thinly settled parts of the country, in the management of difficult, complicated, or obscure cases of disease—men, too, who had never visited a hospital, or attended a clinique. In such places, away from all extraneous aids, the mind is thrown upon its own resources, the intellect is sharpened, the judgment strengthened, and observation made more acute; the result is, a class of independent, strong-minded, thoughtful, discriminating physicians, whose success in the diagnosis and treatment of disease will not suffer in comparison with that of British practitioners, or of many in our profession who have enjoyed the advantages of London or of Paris.

Physicians in the city estimate perhaps too lightly the qualifications of those in the country, and those in the country, perhaps, think too highly of those in the city. We are all, we fear, inclined to think too highly of ourselves, and too meanly of others, and to imagine that no good thing can come out of Nazareth. And yet, while we are so ready to disparage others, and to suppose that wisdom is born and will probably die with us, we are a very thin-skinned race, and feel very acutely any attacks made on us, as individuals, or as a profession. If a man rises up in our State Legislature and calls us a "set of old women," we take fire instantly; stand upon our dignity; show by our sensitiveness, that we are hit; flounder incontinently; are laughed at deservedly,—and yet we are not at all backward ourselves sometimes in saying hard things of the profession.

On one point, we find Professor Paine agreeing with Dr. Davis, and that is, in relation to the necessity of more care on the part of individual practitioners, concerning the capacity and qualifications of young men whom they receive into their offices as students, and more attention to their education after they are received.

Dr. P. thinks that "these are appropriate subjects for united deliberation;" but then he differs with Dr. D. as to their "magnitude and universality, and the terms in which they are expresed."

It seems to be the opinion of Professor P. that the main object of the National Convention is, to cripple and embarrass the Medical Colleges, rather than promote the cause of medical science. But we have too much confidence in the wisdom and good sense of the profession to harbor such a suspicion for a moment. We believe that they have no desire to injure medical schools, but rather to promote and ensure their prosperity, by considering, suggesting, and maturing plans for the more successful accomplishment of the objects for which they were established. If we mistake not, the principal supporters of the plan of a national convention are themselves, professors in some of the colleges, and if the project did not originate with the schools, it is very certain that without their aid it cannot be carried into successful operation.

In a recent letter from Dr. D., intended for our pages, but which we are compelled to omit, he remarks :—

"It may be, that in my zeal to bring about a better state of things, I may have used a too sweeping phraseology in my communications published in the 'New York Journal of Medicine' for November and January last; if so, I *retract* the objectionable language with far more pleasure than I used it. It is to the medical profession that I have devoted my life, my fortune, my labor, by night and by day; for this I have renounced every other worldly pursuit, and I would as soon slander myself as intentionally slander the profession of my choice."

However objectionable the language of Dr. Davis may have been, it is by no means more severe than we often meet with in foreign journals, as descriptive of the state of medical education, and the profession in Great Britain. For example, the *Dublin Medical Press*, for Feb. 25, 1846, remarks as follows:—

> "Nothing can be more monstrous than the conduct of the English College of Surgeons in examining in anatomy and surgery only, except it be the practice of granting diplomas to persons *utterly deficient in preliminary education.* We are assured by an experienced grinder that *he has* passed men who could scarcely read or write."

We repeat, that the colleges of this country enjoy at this moment the confidence of the profession; the fact that they are so extensively patronized, that such a large proportion of the young men who study medicine, find it for their interest to attend lectures in some of our incorporated schools, shows, that the advantages they furnish are properly appreciated, and that it would be an act of suicidal policy to abridge their usefulness. We are satisfied there is no desire on the part of the profession to do aught of injury to medical schools; they know the study and labor necessary to qualify for the business of teaching, and how poorly, also, that teaching is paid: they are well aware, that with few exceptions, the practice of medicine is far more profitable than teaching the science. They see the benefit accruing to students from attending courses of lectures, and therefore it is that they extend the hand of encouragement to medical schools, and cherish them by their friendly patronage and influence. Hence it becomes the duty, as we think, of the colleges, to reciprocate these friendly feelings, to conciliate further good offices, to co-operate in adopting measures to advance the interest of our common profession, and by raising the standard of education, raise also its respectability. Our interests are all bound up together, and one cannot suffer without the other; or in the more expressive language of Professor Paine, "The pursuit of medicine to cultivated minds, is what the sympathetic nerve is to the various parts of organic life. What is felt by one, is thus felt by the rest; and whether healthy or deleterious causes may affect the condition of any part, it is enjoyed or suffered by all the rest. Each in its turn, and all together, conspire in recuperative effort for the good of any member that may sustain aught of evil. However distant from each other, we are still but parts of a common whole, and the most remote member is as near to the whole, and can as speedily reach the whole by a glance of the mind, as the heart can light up a glow of joy through that same mind in its connection with organic sympathy."

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK FOR 1846.—We have received a copy of the Transactions of our State Society for the last year. The most important paper in it, is a communication from Dr. Hun, of Albany, on Phlebitis. There is also a valuable article from Dr. Davis, and a very excellent Address to the Monroe County Medical Society by Dr. Armstrong. Drs. Beck and Brigham furnish an analysis of testimony on the trial of Alvin Cornell for murder. The remainder is occupied with the Appendix, containing an abstract of the proceedings of the Society.

Among other doings, we find the following resolutions, which passed the Society:

"*Resolved*, That every candidate for license to practise physic and surgery, should be required to give evidence to the board, by whom he is examined, that he has received a good academical education, and that he has studied physic and surgery not less than four years with some regularly licensed physician; that he possesses a competent knowledge of physic and surgery; that he has personally assisted in the dissection of at least two good anatomical subjects, under the direction of a regularly educated physician, or in some incorporated medical college in this state; that he is practically acquainted with chemistry and botany, and has presented the board with an essay on some medical subject, written by himself; and that he is twenty-one years of age, and of good moral character.

"*Resolved*, That a board of censors, to consist of not more than five from each of the censorial districts, be chosen,—the choice to be made from the candidates who may be nominated by the county medical societies, composing the respective censorial districts,—by a majority of the votes of all the members of the State Medical Society present and voting, at any annual meeting thereof. The term of office of each censor, in the respective censorial districts, to be determined at the first election by lot, and thereafter the vacancy of one in each censorial district to be filled by the State Society at its annual meeting; seven of said board of censors to constitute a quorum for the transaction of business,—to meet at such times and places, and be governed by such rules and regulations, and receive such compensation for their services, as the State Medical Society shall, from time to time, direct. The board of censors thus constituted, shall examine all candidates for license to practise physic and surgery; and to such as are found qualified, agreeably to the requirements of the preceding resolution, it shall be their duty to grant a license to practise physic and surgery, under the auspices of this Society, after filling their certificate, as now required by law. Said board may also examine such candidates for the degree of Doctor of Medicine, as have been practitioners of medicine in good standing, for at least five years, and by a vote of two-thirds of the board of examiners present, may recommend such candidates to the Regents of the University, as suitable persons on whom to confer said degree. Each person licensed, to pay to the president of the board of censors, for the use of this Society, twenty-five dollars; and each person who is recommended as entitled to the degree of Doctor of Medicine, to pay as aforesaid, the sum of thirty-five dollars, and no license to be granted, or degree conferred, until said fees are paid. And that said board annually report their doings to this body. And all laws relating to granting licenses to practise physic and surgery, and to conferring the degree of Doctor of Medicine in this state, inconsistent with the above regulations be repealed.

"*Resolved*, That this Society should appoint eight committees, corresponding with the number of senatorial districts in the state, whose duty it shall be to carefully investigate such subjects as shall be referred to them, and report annually, in writing, the result of their investigations, to the regular meetings of the Society; and that, as far as possible, the necessary expenses of such investigations be audited and paid out of the treasury of this Society.

"*Resolved*, That in order successfully to raise the standard of medical education, it is necessary, at the same time, to improve primary popular education, in reference to the subject of medicine; that in order to appreciate knowledge, it is necessary to understand something of the principles upon which it is based; and that physiology, chemistry and botany, should constitute essential parts of a common school education.

"*Resolved*, That the resolutions in reference to medical education, as revised and adopted at this meeting, be committed to a committee of three, whose duty it shall be to lay a copy of the same before the officers of each county medical society and college in the state, asking definite and direct action thereon, by the societies and colleges represented by them, and that the committee report the result of such action at the next annual meeting of this Society. And that N. S. Davis, T. W. Blatchford, and J. A. Wing, be said committee."

In respect to the second resolution—relating to the appointment of a board of censors to examine candidates for license to practise physic and surgery, and for the degree of M.D.,—it is evident that the State Society has no power to assume this control over the licensing business: which is now vested in certain bodies by legislative acts. We are certain that even the Legislature itself has no power to take from the colleges their chartered rights to confer the degree of M.D.: and if it could be done, many doubt whether it would be vested in any body, where it would not be liable to equal, if not greater, abuse than it is at present. Suppose the second resolution were *now* enacted into a law, does not every one perceive that the only effect of it would be to drive students from this state into those states where the degree of M.D. could be procured after three years' study, and where the qualifications for it are no greater than they now are in our own state? We agree, therefore, fully with Dr. Stearns, as expressed in his letter (p. 195), that, "however plausible the proposed plan may appear in theory, it is not dictated by practical experience, and its existence would not endure half of that period of time that has marked the duration of county societies under the present law." If there is to be a change, the different colleges might do as Geneva College has done, *make their examinations public*, invite the censors of the State Society to be present, appoint a board of medical curators who may also be present, and let a majority of the votes of all be necessary to confer the degree of M.D. This plan has worked admirably well at Geneva College, and given satisfaction to the profession universally. Why may it not be extended to other institutions?

MEDICAL DEPARTMENT OF THE UNITED STATES ARMY.—We frequently receive letters requesting information in relation to the mode of, and qualifications for, admission into the Medical Corps of the United States Army, &c. We have therefore thought that we should do our readers a service by spreading the following intelligence upon the pages of our Journal. From the printed "Regulations" we extract the following, relating to the "*Medical Board of Examination*" (1840).

1. "No person shall be appointed or promoted in the Medical Staff of the Army, until he shall have passed an examination before a proper Board, and received therefrom a favorable report.

2. "A Board consisting of three Medical Officers, will be detailed from time to time, by order of the War Department; who will examine all persons, between the ages of 21 and 28, authorized to present themselves. In the execution of this duty, they will rigidly scrutinize the pretensions of each candidate; taking into consideration his physical qualifications and moral habits, as well as his professional acquirements, and will report favorably on no case admitting a reasonable doubt. The health and lives of the officers and soldiers are too important subjects to be committed to ignorant and incompetent hands.

3. "The Board will report the positive merit of the candidates in the several branches on which they may be examined, and their relative merit from the

whole examination, agreeably to which they will receive appointment, and take rank in the department.

4. "When a candidate for appointment shall fail to receive a favorable report, he may, if desired, be admitted to a second examination, after the expiration of two years, and on a second failure will be dropped from the list of applicants.

5. "No allowance will be made for expenses of persons undergoing these examinations, as they are considered indispensable pre-requisites to appointment, but those who are approved and receive appointments, will be entitled to transportation on obeying the first order.

6. "No person shall be appointed a Surgeon until he shall have served five years as an Assistant Surgeon in the Army; nor shall any Assistant Surgeon be permitted to decline promotion, except for reasons growing out of the interests of the service. At the expiration of five years' service, or as soon after as practicable, each one shall be examined by a Medical Board for promotion, and in the event of his refusal to appear before the Board, or his failure to receive a favorable report, his connection with the Medical Staff shall cease from that time."

On the subject of the high professional qualifications exacted for admission into the Medical Corps of the Army and Navy, in connexion with the numerous rejections by the respective examining boards, we have also sought and obtained from a high and reliable source, some information, especially in regard to the Army, which may not be uninteresting.

It would appear that previous to the year 1832, the executive, experiencing great difficulty in selecting well qualified persons from the numerous applicants for appointment in the Medical Staff of the Army, instituted by regulation, a Board of Army Surgeons, for the examination of Candidates. So rapid and apparent were the beneficial results of this measure, that two years afterwards it was confirmed by a law of Congress. By the language of the regulation, "the Board are required rigidly to scrutinize the pretensions of each candidate; taking into consideration his physical qualifications and moral habits, as well as his professional acquirements; and will report favorably upon no case admitting a reasonable doubt. The health and lives of the officers and soldiers are too important objects to be committed to ignorant and incompetent hands."

The question to be determined on these examinations is the fitness of the candidate for the duties and responsibilities of the *Military Medical Service*. The examinations are conducted by Army Medical Officers, who are not only, from their position, most likely to form an unbiassed judgment, but who possess such practical knowledge of the duties required of an Army Surgeon as enables them to judge correctly of the candidate's qualifications.

The Military Surgeon has duties and relations peculiar to himself; and the Boards, in selecting candidates for appointment, have had respect as well to their fitness for the special duties of the office, as to their purely professional ability. Under the Regulations, the Medical Officer is required to investigate the physical agents that may affect the health of the troops, to make reports upon the medical topography of his station, to aid in the selection of military positions, and as a question of military hygiene, to express his views in respect to the diet, clothing, quartering, and exercises of the troops. He is, from the necessity of the case, a *general practitioner* in the most extended sense of the term, and from location he is often thrown entirely upon his own resources, and deprived of the advantage of calling to his aid the friendly counsel of professional brethren.

Nor have the army medical officers been regardless of the high claims of medicine in itself as one of the *liberal* professions. Themselves medical men, they feel a deep interest in the character of the profession, and rejoice in any measure that would tend to promote its honor and efficiency

The following table will show the results of the examinations by the Army Boards for the last five years :

Years.	Presented themselves.	Withdrew, a portion being physically disqualified.	Examined.	Approved.	Vacancies happening within the year.
1841	22	8	14	6	5
1842	12	2	10	2	2
1843	14	4	10	4	1
1844	9	2	7	3	1
1845	12	2	10	2	3
	—	—	—	—	—
Total	69	18	51	17	12

It having been erroneously supposed by some, that the Board merely elected a sufficient number of the best qualified candidates to fill the vacancies existing, or likely soon to happen, we are explicitly assured that such is not the fact,—that *all* candidates deemed qualified are approved as a *matter of course*, whether there be one vacancy or twenty. Neither the department nor the examining boards could ever reconcile it to their notions of fair and honorable dealing to make the success of a candidate depend upon the casualties of service.

The most striking causes of failure on the part of the candidates are, *insufficient preparatory education—a hurried course of professional pupilage—want of proficiency in practical anatomy, in pathology, and in clinical medicine.*

The following extract from one of the Reports of the Board will show the principles upon which the examinations have been conducted, and, also, that the members of the Board were painfully impressed with the necessity of reporting unfavorably upon so large a proportion of those examined :—" In reference to the fact that comparatively a small number only of the candidates examined were found qualified for appointment, the Board would respectfully suggest, that professional attainments of a higher order are deemed requisite in the medical officer of the army than in the young practitioner in civil life, for the reason that whilst the circumstances of the service very often place the one far beyond the reach of counsel from his professional brethren, the other may ordinarily avail himself of the riper knowledge and superior skill of his more experienced fellow-practitioner. The Board in establishing, therefore, what may be regarded an elevated standard of professional qualification, have, in their opinion, but acted in conformity to the spirit of the Law and Regulation under which they are organized ; and though in the conscientious discharge of their duties, they may have necessarily caused pain and disappointment to gentlemen of admitted moral worth, and integrity of personal character, they find not their justification merely, but motives to action, which they are not at liberty to disregard, in a sense of the duty they owe the cause of humanity, and the best interests of the service."

April 13, 1846.

The following are the *Rules of Proceeding* adopted by the Medical Board of Examination :

Rule I.—The proceedings of the Board shall be confidential.

II.—Candidates shall be examined at the discretion of the Board in such order that, cæteris paribus, those who come the greatest distance shall have precedence in the order of examination.

III.—The order constituting the Board, and the Executive Regulations defining their duties, shall be read to each candidate previous to his examination.

IV.—Each candidate shall, previous to his examination, be required to make a certificate in regard to his age, health, &c., agreeably to form.

V.—As introductory to his examination, each candidate shall be required to prepare in writing a *brief* extemporaneous description of the causes, symptoms, pathology, treatment, &c., of such disease as may be assigned by the Board—together with one or more prescriptions proper in the case, written out in form for the apothecary.

Certificate of Age, Health, &c.—I hereby certify, on honor, that my true age is —, and that I have never been affected with hernia, hemorrhoids, hemoptysis, or convulsions ; that I am not subject to any infirmity or predisposition to any disease, mental or physical, that would in any way disqualify me from performing efficiently the most active and arduous duties.

N.B. The candidates who have been examined were, with one exception, graduates of medical schools.

At present there are one Surgeon General, twenty Surgeons and fifty Assistants in the U. S. Army.

College of Physicians and Surgeons.—We take great pleasure in laying before our readers the following correspondence, which reflects great honor upon the parties concerned,—such examples of generosity and munificence are worthy of permanent record, as they not only add grace and dignity to our profession, but serve as examples for the imitation of others :—

"*December* 2, 1845.

"Dear Sir :—I beg, through you, to present to the trustees of the College of Physicians and Surgeons, of this city, the museum of anatomy which, at some expense of time and money, I have been collecting since my entrance into the profession. It affords me great pleasure, by this donation, to lay the foundation of what I trust may at no very distant day be a magnificent collection, and to express my deep interest in an Institution with which for so many years I have been connected as Pupil, Demonstrator of Anatomy, Fellow, and Trustee.

"With my hearty congratulations on its present prosperity, and best wishes for its future welfare, I remain, my dear sir,

"Very truly and faithfully yours,
"J. KEARNY RODGERS.

"To A. H. Stevens, M. D.,
"President of the College of Physicians and Surgeons."

"New York, *Dec.* 30, 1845.

"Dear Sir :—Upon the presentation of your highly valuable collection of anatomical specimens to the College of Physicians and Surgeons, the trustees requested me to convey to you their most hearty thanks for your munificent donation.

"In the execution of a duty so pleasing to myself individually, I beg to add the hope, that as the collection shall hereafter increase by your future labors, so may your professional reputation keep pace with that increase, that both may be as enduring as the spirit which led to this liberality is worthy of commendation.

"With unfeigned regard,
"I am your obliged friend and humble servant,
(Signed) "A. H. STEVENS, *President.*
"To J. K. Rodgers, M. D., &c., &c."

"My Dear Doctor:—Will you do me the favor to state to the trustees, that I beg them to consider my cabinet of materia medica as the property of the College. It has been collected with a good deal of care, and contains near six hundred specimens. Although not as extensive as I hope hereafter to make it, it embraces everything really useful to the student, besides many articles which are rare and curious. With my congratulations upon the present prosperous condition of our Institution,

"I remain very truly yours,
(Signed) "JOHN B. BECK.
"To Alex. H. Stevens, M. D., &c.,
"President of the College of Physicians and Surgeons.
"*November* 10*th*, 1846."

"New York, 8*th Dec.*, 1845.

"Dear Doctor:—I have the honor to acknowledge the receipt of your letter conveying to the College your very valuable collection of specimens of the materia medica. It was duly presented to the trustees, who instructed me to express to you their cordial and sincere thanks for your liberal donation.

"I trust it will long continue to adorn the room in which the Board holds its meetings, and continue to remind them of the munificence of a professor who has long done honor to the Institution, in which he holds a distinguished place.

"With great respect and personal regard,
"I remain, most truly, your friend and obedient servant,
(Signed) "A. H. STEVENS, *President.*
"To John B. Beck, M. D., &c., &c."

It appears from the catalogue of this Institution for 1845–6, that the number of students during the past session has been greater than at any former period of the college, amounting to 218, being an increase of 25 since the session of 1844–5. Since the last session the trustees have expended a large sum in improving and refitting the college building, and other improvements are contemplated during the coming year. Besides the donations made to the college by Drs. Beck and Rodgers, consisting of an anatomical collection, and a cabinet of materia medica, a number of preparations, casts, and drawings, have also been presented by Drs. Stevens, Ludlow, and Beck, &c. Three courses of lectures are now given at the college during the year, viz., a *Fall Course*, the regular *Winter Course* (sub-graduate, required by law), and a *Spring Course*. The fall course, commencing on the 1st Monday of October, is conducted by the faculty, the spring course by an association of gentlemen, most of whom are connected with the different public medical institutions in the city; it begins in March, and is continued about three months. The circular remarks that "The Faculty feeling that the session of four months required by law, was too short even for the regular courses, and much too short to allow them to enter into specialities, have, of themselves, and with the co-operation of other gentlemen, extended the time, during which public instruction is given in the college, to eight months. They have already seen the happy effects of this enterprise upon the prospects and character of the Institution, and upon the proficiency of its alumni."

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Adulteration of Medicines.—We some time ago announced our intention to make a full exposure of the deceptions practised, relative to the adulteration and substitution of drugs in this country, and we have made considerable progress in collecting information connected with the subject. We again solicit the aid of druggists, physicians, and others, in carrying on this work. We commence, by inserting the following communications, for which we cordially thank the respective writers, and trust they will furnish further information.

"*New York*, *February* 6, 1846.

"Dr. Lee:—Dear Sir,—According to your desire, I have made inquiries among a few of the dealers and pharmaceutists concerning some of the leading articles in the Materia Medica, a synopsis of which you have following:—

"*Balsam Copaiva.* This article being now afforded at a reduced price, the genuine *Para* is easily to be had.

"*Balsam Peru.* Of uncertain purity. Doubtless mixed with Venice Turpentine.

"*Creasote.* Often mixed with *alcohol*, perhaps with *acetic acid*, as a solvent. (I have had that, however, so called, which would not thus combine.)

"*Croton Oil.* Various as to quality. The English is before the French.

"*Almond Oil.* Composed of *ol. olivæ* and *ol. amygdalæ*, in various proportions.

"*Olive Oil.* The druggists obtain much of undoubted purity, yet there are substitutions. A thousand boxes were some time since thrown into this market, not a bottle of which perhaps contained an ounce of the real article. *Lard Oil*, it is thought, is exported from the United States for this manufacture.

"*Calomel and Blue Pill.* As made in Philadelphia, at two celebrated laboratories, unsurpassed, not much adulteration.

"*Elaterium.* Clutterbuck's is *the* article. An extract, however, of very inferior value comes from Paris.

"*Rhubarb.* Now cheap. Eng. Rh. is 20 cents per lb. This, as well as Ipecac and Jalap, is imported in the pulverized form, or made such here, perhaps, is mixed variously with liquorice root, calombo, etc.

"*Syr. Ipecac.* Weismann makes his with emetine, which is of pleasant flavor.* The Brazil Ipecac is superior to the Maracaibo.

"*Jalap.* The fibrous part of the stalk, next the root (the footstalk), is often ground up with the root proper, making a powder of weak efficacy.

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* We have found the syrup, prepared from emetine, altogether too acrid and violent in its effects to be given with safety to infants and young children, and do not employ it.—Ed.

Though the apparent difference is only in the slightly lighter color of the compound.*

"*Ponderous Magnesia* is made by a more thorough calcination, and has a decided advantage in the point of bulk, if no otherwise. Much like Henry's.†

"*Iodides.* The Philadelphia are good. French Hydriodate of Potash sometimes contains lime. The real Pelletier are, however, pure and reliable. The Syr. of Iod. of Iron is made in a short time, and without difficulty.

"*Iron.* Weismann showed me some beautiful specimens of his own make, superior to what I am in the way of seeing, such as the carbonate, the proto-sulphate, the muriate, etc. An acetated tincture, from a German formula, is of a very agreeable taste, and far less acrid than the common muriated tincture.

"*Sarsaparilla.* The Caraccas is allowed to be unsurpassed.

"*Extracts* would be better were they reduced only to a semi-fluid form. The Shakers' Extracts are so little divested of extraneous matters, and subjected to so high a heat, as to be not well distinguishable in taste. The German Extracts are prepared by solar evaporation, or else by the Vapor bath, and are very good. (In Germany every apothecary must have a laboratory, and prepare all the articles he dispenses.) English belladonna is, however, thought to be superior to the German.

"Yours, A. CALKINS, M.D."

"*New York, April* 19, 1846.

"DR. LEE:—Dear Sir,—In the actual state of science there do not exist proofs sufficiently positive to permit us to pronounce with certainty if a given extract is prepared from such or such a plant, especially if we wish to distinguish the extracts prepared from the different narcotic plants; it is true that the particular smell of the plant offers approximative means to decide if an extract is prepared from *Cicuta*, *Stramonium*, *Belladonna*, *Hyosciamus*, *&c.*, but this requires great practice in the different modes of preparing them, as also a perfect remembrance of the particular aroma of each plant.

"The best mode of succeeding in the examination of these extracts, is to prepare a solution of any one of them in distilled water, adding to it the twentieth part of diluted *sulphuric acid*, which will powerfully and almost immediately develope the characteristic smell of the plant.

"A most shameful substitution has been lately made and sold extensively in England, and no doubt in this country, for the *extract cinchonæ:* the following is the substance: ℞ *Extract of Horsechestnut bark* 200 parts, *Yellow Rosin* 25 parts.

"The powder of *Red Cinchona* has not escaped adulteration, being sometimes very scarce, and always commanding a fair price. A great quantity has been found to be made of *red saunders*, and inferior kinds of grey or yellow cinchonas. The best test to discover this fraud is *sulphuric ether* or *essence of turpentine*. The true red cinchona does not communicate any coloring matter to these agents. The adulterated, on the contrary, gives almost immediately a saffron color, which varies in depth according to the different proportions of sandal wood which it contains.

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* The resin of jalap, when pure, is a valuable article, being much of the color of common resin, with which it is mixed by the French.

† We think we have found this article possessing decidedly *caustic* properties, and hence unsafe for infants. Even Henry's is not always free from this property. —ED.

"The high price of *iodine* and the *iodides*, and the great competition between the manufacturers, are the causes that these substances have been largely adulterated. The most difficult adulteration to discover of iodine is its mixture with *scales of iron*, especially if the mixture has been made for a long time; the iodine combining with the *oxide of iron*, and forming *iodure t of iron*. The best test for this is to treat the suspected iodine with double its weight of *iodide of potassium;* if pure, it will dissolve entirely; if not, a pulverulent precipitate is formed, and if treated with a new quantity of iodide, the iodide of iron is produced.

"Another substitution is that of the *bromide of potassium* for the iodide of the same base. *Brome* and its *bromides* have been for a long time at a high price, whilst *iodine* and the *iodides* could be afforded comparatively very low; but the great use lately made of the iodides for various purposes having raised their price and that of iodine from $5 a pound to $20, and even $25, it was to be feared that iodide would be adulterated with the bromide, which has been the case; but the adulterators, not satisfied with simply mixing them, have substituted others for them altogether; which entire substitution has been the means of discovering the fraud. The best mode of testing the purity of the *iodide of potassium* is to make a solution of 12 parts of pure iodide in 108 of distilled water, and another in the same proportions, with the suspected salt. Then by dropping a solution of *nitrate of silver* into it, a fine yellow precipitate is formed, which, by the addition of *nitric acid*, will form a *greyish* precipitate overflooded by a *blackish liquid;* whilst with the *bromide* a curdled yellowish-white precipitate is formed, which is not alterable by nitric acid. The *iodide* and *bromide*, if mixed in equal proportions, will, by the use of the same agent, produce a yellow precipitate partly curdled, which is changed by *nitric acid* into a blackish grey, overflooded by a red liquid.

"The *lactate of iron* should always be bought in crystals; the white powder which is sold for such does not, sometimes, contain a particle of it; it is a mixture of *proto-sulphate of iron* and sugar of milk.

"The *sulphate of quinine* is often adulterated with *mannite;* the best test is *rectified alcohol*, which dissolves the quinine and leaves the mannite untouched. *Cinchonine* is also mixed with quinine.

"Some *acetate of morphine* has been found adulterated with lime and magnesia.

"*Oxide of antimony* is adulterated with Spanish white. Nearly all of these chemicals are put up in Belgium, with the stamps of some of the best French houses.

"The *extracts* in general, which are prepared here, are adulterated, as I have told you, with the *expressed juice, or decoction of grass*, and always very carelessly prepared, as you can judge by comparing them with those which I have prepared. Yours truly,

"M. Delluc, Pharmacien."

[We also insert with much pleasure the following letter from Mr. M. Delluc, of the well-known firm of Delluc and Dupuy of this city, successors to the old and eminent house of Place & Souillard. Mr. D. is a person of most amiable manners, a very promising pharmaceutist, and laudably desirous of an honorable notoriety. The frankness with which he makes known his manner of preparation of the articles which he communicates, does him credit: and we can speak from personal inspection of the general excellence of the drugs supplied by the firm to which he belongs. *There* is to be seen, in our estimation, the perfection of Pharmacy.—*Ed. N. Y. Jour. of Med. Sc.*]

" Dr. Lee :—Sir,—Public attention having been lately much occupied with the action of certain styptics in cases of hemorrhage, a variety of substances have been asserted to possess powers in that respect equal to the celebrated "eau Brocchieri," and among others I may mention *ergotine* and *creosote;* it is obvious, however, that in many cases both are objectionable. The distilled water,—whose preparation I subjoin,—has proved to be inferior to none of these styptics, having, in a short time, arrested effectually the hemorrhage from a deep incision in the carotid artery of a sheep, under the hands of a highly respectable physician of this city.

" I send you herewith some of this fluid for trial, hoping that the result of your experiments may equal my expectations; and I beg of you to insert the formula of my preparation in your valuable journal.

" I also send you the formula and a specimen of the combination of *hydriodate of potassa* and *stramonium*, which has been recently used with benefit in rheumatic pains, neuralgia, painful glandular swellings, etc., by physicians here—yourself among the number.

" The common ointment is liable to great objections. The hydriodate of potassa crystallizes very soon after being incorporated with the axungia or cerate. This not only impairs the efficacy of the ointment, but creates a considerable irritation, and a vesicular eruption when the small crystals of the salt are rubbed on the skin. Having been solicited by several of our medical patrons to effect a combination of stramonium and hydriodate of potassa which would obviate these objections, after a few trials I have adopted the following. It is a neat preparation, and will keep for years without decomposing.—(*See next page.*)

" I have also applied myself to prepare fluid extracts from some of our most useful medicinal plants, amongst which I may mention the following :—

" 1st. *Fluid extract of senna:* this preparation contains in a concentrated form all the properties of the senna leaves, combined with some aromatic tonics ; a teaspoonful will be found a very efficient cathartic, either alone or combined with some of the saline salts. Being almost without any taste of the chief ingredient, it is readily taken by children in the small dose of a teaspoonful.

" 2d. *A fluid extract of taraxacum:* each teaspoonful contains 6 grains of solid extract.

" 3d. *A fluid extract of rumex Britannica:* dose, a teaspoonful thrice daily.

" 4th. *A fluid extract of dulcamara:* dose, a teaspoonful thrice daily.

" 5th. *A fluid extract of saponaria: offic.*—so much used in Europe as an alterative instead of sarsaparilla ; in fact, deemed superior to it in efficacy.

“6th. *A fluid extract of prunus Virginiana:* combining sedative and tonic properties. All these extracts are prepared by a new process by which I am able to retain all the properties of the plants unaltered—as will be found on inspection—as well as several of the most useful solid extracts prepared with hydro-alcohol.

“7th. *Aqua prunus Virg.*: to which I particularly call the attention of the medical profession—being a good substitute for, and fast superseding the use of the aqua lauro-cerasi, which is hardly ever to be found good in this country. It has been found to be more uniform and more powerful in its operation than the latter, especially in cases of nervous disorders of the stomach. 20 drops have been given three times a day, and increased gradually to 60. This water has also this great advantage, that it can be prepared at all times, and of a uniform strength, which is not the case with the cherry laurel water.*

“Having been shown lately by a medical gentleman the necessity of a chemical combination of quinine and prussic acid, which would not contain any ferruginous salts, as in the ferrocyanate, I have been able to form, by double decomposition, the *cyanuret of quinine;* being the salt sought for. It has been tried in pills of $\frac{1}{4}$ of a grain each, but found to be too active; and it is now in the way of being experimented with in doses of $\frac{1}{16}$ of a grain: the results of which, and manner of preparation, will be given hereafter, if desired.

“The following is the mode of preparing some of the articles above mentioned.

“BAUME HYDRIODATE AU STRAMONIUM.

℞ Hydriod. Potass.	℥ ij.
Sapo Animal.	℥ iij.
Alcohol Dilut.	
Tinct. fol. Stramonii āā	℥ viij.

M. et ft. sol.

“This, when well prepared, forms, on cooling, a soft jelly of a handsome green color, which readily dissolves by the heat of the hand; a small piece, the size of a hazel-nut, is rubbed on the affected part, two or three times daily, either with the hand or a piece of warm flannel.

“N.B. Either of the active ingredients can be augmented if desired.

“AQUA HÆMOSTATICA.

℞ Abiet. Palustris (young branches)	℔cl.
Fuligin. Ligni	℔iv.
Terebinth. Venetæ	℔ss.
Aquæ puræ	℔lxiv.

“The *A. Palustris* is to be cut in small pieces, then to be macerated for about 24 hours, in a sufficient quantity of water to cover it, taking care to replace the water as soon as it is absorbed. It is then put into the cucurbite of an alembic, with the other ingredients, and the 64 lbs. of water distilled off over a brisk fire. With a view to disguise the fœtid smell of the fuligo, I redistill the product of the first distillation over the following substances.

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* The formulæ for preparing the above article will be given in our next No. (*Ed.*)

℞ Salviæ sclareæ		
Rosmarin. off.	ā ā	℔ss.
Menthæ pip.		
Menthæ pulig.		
Melissæ off.	ā ā	℔j.
Bacc. Juniperi		℥ii.
Abiet. Palustris (Saw-dust)		℔iv.

"These are to be treated by maceration for the same length of time as for the A. Palustris; the plants should be previously pulverized coarsely; they are then to be put over the grating of the alembic and smeared with
Bals. Peruv. nigr.
Bals. Canadensis ā ā ℥viij.

"This second distillation should be conducted very slowly, taking care to leave a sufficient quantity of water in the cucurbite after having obtained the 8 gallons, to prevent empyreuma.

"This water must be put into black bottles or in a dark place, and kept cool, having previously removed carefully the essential oil which floats on the top.

"All these preparations I venture fearlessly to offer to the inspection of the medical public, and to invite their scrutiny. I believe that they will be found very superior articles of Pharmaceutic manufacture, and most of them have the sanction of the use and approbation of our oldest and most eminent physicians. The mode of their composition, I shall at all times be happy to explain.

"Yours very respectfully,
"M. Delluc,
"Of the Firm of Delluc & Dupuy."

Bailey's Extract of Sarsaparilla and Tonic Mixture.—We have also received from Mr. Wm. Bailey of Brooklyn, a circular which is sent, or proposed to be sent to physicians generally, containing formulas for the preparation of his "*Fluid Extract of Sarsaparilla*," and "*Fluid Extract of Cinchona Rubra*," or "*Tonic Mixture*."—These preparations have been in use several years, and are favorably regarded, we believe, by the profession. The following are the *Formulæ* referred to.—(We copy as sent us.—Ed.)

Method of preparing "Bailey's Fluid Extract of Sarsaparilla,"

Best Honduras Sarsaparilla (ground),	16 parts.
Rasped Guaiac	2 "
Rad. Sassafras	1 "
Rad. Glycyr.	1 "
Fol. Senna	1 "
Yellow Dock Root . . .	3 "
Rad. Taraxicon . . .	3 "
Dilut. Alcohol . . .	160 "

All put in a tight cask, and to stand 60 days, agitating it once a week; then draw it off, and put it in a copper still; then distil off nearly all the alcohol, leaving only a sufficient quantity to keep it. The residue is the compound extract of sarsaparilla; add to this a q.s. of hydriodate of potass, so that the dose as directed will contain 2½ grs. of hydriodate of potass.

Method of preparing "Bailey's tonic mixture, fluid extract of cinchona rubra."

Best Lima Red Bark,	10	parts.
Cort. Aurantia,	4	"
Rad. Serp. Virg.	2	"
Anth. Nob.	1	"
Alcohol Dilut.	120	"

Digest 4 weeks, agitating it twice a week; then draw off the clear liquor, which put in a copper still, and distil off one half of the alcohol. The residue is the fluid extract. To this add sulphate quinine and salicine, so that each dose as directed will contain 1 grain quinine, ½ grain salicine.

Proceedings of the Counsellors of the Massachusetts Medical Society.—The Committee appointed on the fourth day of October, 1826, to consider a communication from the medical societies of Vermont and New Hampshire, and to report to the councillors, have attended to the duty assigned them, and respectfully recommend the following answer to said communication, and further, that it be printed and transmitted to the medical societies and medical institutions in the States of Vermont, New Hampshire, New York, Connecticut and Maine, and to the Medical Institution of Harvard University, and the Berkshire Medical Institution.

[Signed] John C. Warren,
John Dixwell,
George Hayward, } Committee.

The Counsellors of the Massachusetts Medical Society to the Medical Societies of the States of Vermont and New Hampshire:—

Greeting:—The Counsellors of the Massachusetts Medical Society acknowledge the receipt of your letters dated December 16, 1825, and June 6, 1826. The disposition manifested in these communications to improve the character of the medical profession in this part of the country, by elevating the standard of admission to practice, is received by them with peculiar satisfaction. Occupied as this Society and its counsellors have been for the last twenty-five years, in a series of constant and laborious efforts to render our profession respectable and useful; and availing themselves, as they have done, of every circumstance to enforce on candidates the necessity of fully qualifying themselves for the responsible duties of the medical profession, they cannot but regard with deep interest any proposition tending to the accomplishment of objects, in their view, so desirable. The Massachusetts Medical Society have indeed succeeded in establishing a system for their own commonwealth, and have now the gratification of seeing it in full practice. The medical institution of Harvard University have done the same. Yet the counsellors are not desirous of maintaining that their system is perfect; nor would they exclude the consideration of amendments therein, but rather invite and solicit it.

The counsellors will now take the liberty to apply the experience, the practice their Society has given to the proposals contained in your communication, with that frankness which the importance of the subject to the public good and to their own institutions seems to demand.

Proposition 1*st.* "Each and every student who may apply for the above purpose (license to practise) to any country society in this State, instead of applying to the medical institution for degrees, after the first day of January, 1827, shall bring a certificate that his preparatory studies are sufficient to his being able to enter the freshman class in either of the colleges of this State, or submit to be examined to this effect, unless he may have the degree of Bachelor of Arts."

On this we remark—That the requirements for admission to the freshman class vary in the different colleges, and are much greater in some than in others. Of course the proposal in question would not have the effect to produce uniformity in the different States, and without this, all attempts at improvement would probably be fruitless. The Medical Society of Massachusetts have always demanded of their candidates a preliminary knowledge of natural philosophy. This is not included in the preparatory studies alluded to, and is yet of great importance to medical education.

Proposition 2d. "If any candidate shall have the degree of Bachelor of Arts, he shall be required to have studied three full years with some licensed practitioner, with an absence of not more than six weeks in each year. If such candidate has been only fitted to enter college, he shall have studied four years as above, before he shall be admitted for an examination for a license."

To this the counsellors of the Massachusetts Medical Society are ready to give their unqualified approbation.

Proposition 3d. "Each candidate applying as above shall have attended at least one course of medical lectures during his pupilage; shall have arrived at the age of twenty-one years, and shall have a certificate of a good moral character."

The counsellors of this Society, considering courses of lectures to be indispensable to an adequate knowledge of the medical art, and being aware that students acquire much more information from a second course than from the first, do therefore concur in this third proposal, and in the amendment made by the New Hampshire Medical Society, which substitutes two courses of public medical lectures in some legally-organized and respectable school for one course.

Proposition 4th. "Certificates of study, of morals, &c., shall be made on oath before some competent civil officer, unless given by some member of a legal medical society in this state."

"Certificates of study are not admitted by this Society, excepting from their own fellows: and, considering the necessary ignorance which the members of one society must have of those of another, we believe this regulation to be wholesome, and proper to be continued. Such being the case, the taking an oath appears to be unnecessary, and we should willingly avoid being instrumental in making this practice more common than it is already."

Proposition 5th. "Being fully impressed with a view of the necessity of a general reform, this Society, with due deference, do hereby recommend to the medical institutions in this state, and also in the neighboring states, that candidates be furnished with degrees of Bachelor of Medicine, instead of Doctor of Medicine, after the above period of time; and that degrees of Doctor of Medicine be conferred on those who may merit them seven years after the degree of M.B. may have been granted."

To the recommendation contained in this article the counsellors do not feel prepared to agree, for reasons which they will proceed to state:—

First. The precedents of this country and of Great Britain, not to go further, are against such a measure. In all the universities distinguished as seminaries of medicine, the practice is established of granting the degree of Doctor and not Bachelor of Medicine after three, and at most four years of study. Thus it is at Philadelphia, New York, Baltimore, and Boston: thus, also, is it in Edinburgh, Glasgow, and Dublin. It is true that a different practice prevails in Oxford and Cambridge in England; but it is well known that these have never been distinguished as seminaries of medical learning, and that few medical degrees are applied for in either of them.

Second. The practice of requiring a degree preliminary to that of Doctor of Medicine is useless. The candidate who has obtained the degree of Bachelor of Medicine, being by this admitted to practice, will usually be indifferent to any further degree; and, when established in practice, will rarely be found willing to interrupt the course of it, and subject himself to a new examination. In the instance where the secondary degree should be sought, the candidate would not often vary his course of pursuits with a view to such examination; and of course his literary attainments would not be very materially if at all increased by the expectation of it. The most that could be expected would be a review of elementary studies, and an examination grounded on the expectation of such a review.

Third. The experiment of granting degrees of Bachelor of Medicine has been already tried before our eyes, and has failed. In the earlier years of the medical institution of Harvard University, this system was established, and it appeared not only that the degree of Doctor of Medicine was rarely sought, but even the degree of Bachelor was not often conferred —the candidates choosing some other seminary where the demands were less complex. Many of the fellows of this medical society having been disposed to believe that the check to a full introduction to the Society contained in their laws is not advantageous, it has been recently proposed to abolish it. Hitherto it has been the custom to require every licentiate to wait three years before being allowed admission to the Society. A committee is now in existence for the purpose of inquiring into the expediency of abrogating this law

Fourth. The proposed plan would drive those students whose pecuniary means admitted, to other institutions in which the degree of Doctor of Medicine could be obtained in a shorter time.

Proposition 6*th.* "This Society hereby direct their secretaries to correspond with the constituted authorites of the several medical institutions and medical societies in the states of Vermont, New York, Connecticut, Massachusetts, Rhode Island, New Hampshire, and Maine, and respectfully suggest the propriety of their adopting, simultaneously, regulations similar to the above, for the benefit of the community and the reputation of the profession: and they are further directed to accompany these ordinances with such explanations and arguments as the nature of the subject may seem to require."

Proposition 7*th.* "In case the above propositions shall be rejected by the constituted authorities of the several medical institutions and societies as above, then these ordinances are to be rescinded, and are not obligatory on the medical societies of this state; but if adopted to be strictly observed."

To these the counsellors are ready to give their assent. They consider it not to be improbable, however, that measures similar to those proposed may be adopted by them, whether they are generally adopted or not. The counsellors are perfectly aware that changes in the requirements of candidates are attended with great inconvenience, and ought to be made slowly and circumspectly. Their own system is well established, and has been found to answer the purpose of its formation. But notwithstanding these considerations, they are willing to modify it, should it be found necessary to do so, for the purpose of founding a system of general application.

The counsellors have considered themselves bound to give you information, as soon as possible, of the state of opinion among them in regard to the proposed changes. At the same time they would have it understood, that they have no power to alter the laws of their society: this can only be done at a general assembly of the Society at its annual meeting. In order that you may be more fully informed of the system established among us, we take the liberty of sending you a copy of our by-laws, and also a copy of the statutes of the Medical Institution of Harvard University; some of which, we think, might be incorporated into the proposed improvements; particularly that which requires every candidate to write a dissertation on some medical topic.

But it is obvious that the various societies and institutions invited to concur in the proposed regulations, being governed by their peculiar laws and habits, will take different views of any system which may be presented to them, and hence they will no doubt reject some propositions made, and advance others of their own. Now, according to the proposal of the Vermont Society, the whole system is to be relinquished if not adopted by the constituted authorities of the several medical societies and institutions in the states named above: therefore, it is proposed by this body, That a convention of delegates be held in some central place, for the purpose of agreeing on a uniform system of instruction and examination of students of medicine. That this convention be composed of one delegate from each of the medical societies and institutions of all the states named in the Vermont circular; and of such other states as may be disposed to unite therein. That the meeting for this purpose be held at Northampton, in the state of Massachusetts, on the second Wednesday in May, 1827, at 10 o'clock A.M., or at such other time and place as may be judged expedient. That if a system of instruction and examination should be agreed on, the same shall be submitted to the different societies and institutions by their respective delegates, and each society and institution shall be at liberty to accept or reject it: and if the greater number of societies and institutions adopt the same, it shall go into operation. It being understood that those who adopt the system receive the benefit expected to arise from a reciprocity in the reception of practitioners, graduated or licensed at any of the several societies and institutions included in this arrangement, and those who do not adopt it are deprived of those benefits. Further, that the expenses of the attendance of each delegate be defrayed by the society or institution by which he may be elected; and that, should the Medical Society of Vermont adopt the proposal for a convention, they be requested to issue notices to the several medical institutions and societies in the states above mentioned, inviting them to choose delegates for the convention, at the time and place aforesaid, or to fix some other time and place, if it should be found convenient. At a special meeting of the counsellors of the Massachusetts Medical Society, held at the Medical College, Mason street, November 7th, 1826:—

The committee to whom was referred, at the last meeting, the circular letter from the Medical Society of Vermont, made a report, which, having been read and discussed by sections, was unanimously accepted.

A true copy from the Records. Attest,
Geo. Hayward, *Rec. Secretary.*

Boston, Nov. 27th, 1826.

The Quarantine Laws.—The labors of the Committee, to whom this question was referred by our last Legislature, have been brought to a close, and a report made to the Legislature, an abstract of which we copy.

> "The Committee think that the yellow fever has been brought to this city in her shipping, either by the foulness of the vessel, the sickness of persons on board, a damaged cargo, or clothes from those who had died from the fever, or from these causes combined.
>
> "That it may be brought to this port, when the average temperature is about 80°, from a sickly port, and not be perceived until after her arrival, and perhaps not until after she has broken bulk.
>
> "That a vessel from any port, where the average temperature is about 80°, not passing into a colder atmosphere and arriving here in a similar atmosphere, may bring the yellow fever, if it is prevailing at the port of her departure; or if she lies alongside of an infected vessel, or the crew are otherwise exposed to it.
>
> "That the progress of the fever is checked by violent atmospheric commotions, and destroyed by frost.
>
> "That it is not contagious, infectious or epidemic in a perfectly pure atmosphere, unless it has been pent up in clothes, or other substances, from persons who had the disease, and then it will spend itself on those first attacked.
>
> "That it will develope itself in from two to twelve days after infection, and may even sooner.
>
> "That the small-pox in the city and State of New York principally *originates* from foreign sources, and may be lessened by quarantine regulations.
>
> "That the pestilential cholera developes itself in from one to ten days.
>
> "That passengers arriving in vessels from Europe, not having touched at any port within the tropics, or been exposed to the yellow fever, should, if found in sound health, be allowed to come immediately to the city, after examination by the Health Officer.
>
> "The quarantine regulations at this port are necessary, but should be made as perfect as human skill could devise, and enforced by medical science, manly energy and uprightness of purpose, with as little embarrassment to commerce as is consistent with a wise caution for the public health.
>
> "That if it can find subjects unacclimated, it has the power on shipboard, or on its arrival at this port, of gathering strength, or of reproducing itself in an atmosphere vitiated by exhalations from persons confined in ill ventilated places, by exhalations from animal exuviæ, by noisome filth in docks uncovered by water at low tide, by marshy, undrained lands, by soil abounding with dead bodies imperfectly covered with earth, by decaying vegetable or animal matter, by putrid or impure food and water, by an uncleanly habit, by over fatigue and animal exhaustion; and with these causes, perhaps either separately, may become a malignant pestilential disease, more fatal if the atmosphere is humid.

The following are the essential features of the act recommended by the committee, and as the whole community are deeply interested in this subject, we hope the report will be so extensively circulated as to afford general opportunity for comment and suggestion from those whose experience entitles them to consideration.

The act provides, that all vessels arriving here from where yellow, bilious, malignant, or other pestilential fevers existed at the time of their departure, shall remain at least thirty days after their arrival, and twenty days after their cargo is discharged, and perform such other quarantine as the Health Officer may prescribe.

"The Health Officer is to board every vessel subject to quarantine or visitation, and to examine on oath, as many of those on board as he may deem proper, as to the state of health on board, or at the port from which they had sailed. He may prohibit all vessels or persons from leaving quarantine under specified times. He may permit portions of any cargo to be conveyed to the city, first informing the Mayor of its condition, his permission to be inoperative without the consent of the Mayor.

"The Health Officer, Board of Health, or the Mayor and Health Commissioner, may permit the cargo of any vessel in quarantine to be shipped for export or transportation up the North or East Rivers; but if the vessel receiving the same shall approach within 300 yards of the wharves, the cargo may be seized and sold for the benefit of the Marine Hospital.

"No vessel or boat to be allowed to pass through the range of vessels lying in quarantine, and no lighters to be employed in loading or unloading vessels at quarantine, except by permission of the Health Officer, and under such restriction as he may impose.

"All passengers under quarantine, unable to maintain themselves, shall be maintained either by the captain or on shore at the expense of the vessel, and the vessel shall not leave the quarantine until such expenses are paid.

"All persons, articles or things introduced into the city from vessels under quarantine, may be removed to the quarantine by order of the Mayor, Board of Health, or Health Commissioners.

"Any vessel arriving at the quarantine, and bound to some port east of New York, may be permitted by the Health Officer, after examination, to pass through the Sound; but she must not come to off the city, nor have any communication whatever with it.

"No vessel infected with the yellow fever shall approach within 300 yards of the city between the first of May and October.

"Every vessel having had during the voyage, a case of small-pox, infectious, or contagious disease, and every vessel having on board 40 or more passengers, and not subject to quarantine, shall be subject to visitation by the Health Officer, and is liable to such quarantine as he may direct; and he may direct the vaccination of all on board, if deemed necessary.

"The *Chamber of Commerce* is authorized to nominate in May of each year, a resident practitioner of this city as a commercial physician, to be approved by the Board of Health, to be a member of the Health Board of appeal. The said Board to consist of the Mayor, resident physician and commercial physician.

"Every appeal from the decision of the health officer is to be made in writing, within 12 hours after such decision, and the Health officer shall make his return in writing to the Mayor, who shall convene the Board of appeal, and they shall decide within 24 hours afterwards; the execution of the decision appealed from, to be suspended until the appeal is decided.

"Masters of vessels violating the provisions of the quarantine laws, to be subject to a fine not exceeding $2000, or imprisonment not exceeding 12 months." Various other penalties are prescribed, which it is unnecessary to particularize and there are several minor provisions not necessary to notice more fully.

We shall offer some comments upon this Report in our next number.

ICHTHYOLOGY OF THE U. S.—Dr. J. E. Holbrook, we are pleased to announce, has begun the publication of his part of this work. We believe that it is to be completed by the cöoperation of Dr. Storer, Drs. Kirkland, and Haldeman, and that their parts are to be published in a form similar to that of Dr. Holbrook's, with plates by the same accomplished draughtsman, J. H. Prichard, Esq. From an inspection of the plates prepared for the first two or three numbers, we believe ourselves fully justified in declaring that they surpass our most sanguine expectations. In accuracy, finish, and complete success in transferring to paper the fleeting colors of the *finny tribe*, they exceed anything of the kind we have ever seen, not even excepting the figures of Cuvier and Valencienne's great work on Ichthyology. They are first printed in colors, and then finished by hand. We hope this attempt to furnish the lovers of nature with a work combining perfect execution with trifling cost will meet with proper encouragement. However humiliating the reflection, it is nevertheless a melancholy fact, that in the U. S. scientific works, particularly those relating to natural history, meet with little or no success. Unless the author is able or willing to undertake the publication at *his own cost*, he can never hope to bring his labors, the fruit of many years of patient investigation, before the public. This ought to be otherwise, and we sincerely hope that a brighter epoch is soon to commence in the history of the progress of Natural Sciences in the United States.

Subscriptions will be received at Messrs. Wiley and Putnam's, 161 Broadway, where specimens of the plates may be seen. Terms, one dollar per number. Each number will contain from eight to ten colored engravings.

MEDICAL EXAMINATIONS IN ENGLAND.—The London Medical Gazette, for March 6, 1846, contains a Report of the number of candidates examined in Great Britain for Diplomas and Licenses in Medicine and Surgery, and the number of such Diplomas or Licenses actually granted.

It appears that during the three years 1842, 3, and 4, the *Royal College of Physicians* examined 161 candidates, and granted 160 licenses, the rejections being 0·62 per cent. The *Royal College of Surgeons* examined 1776 candidates, and granted 1576 diplomas; the rejections being 1·12 per cent. The *Society of Apothecaries* examined 1137 candidates, and granted 953 certificates, the rejections being 16·1 per cent. The *University of London* examined 114 (first examination) and passed 72, the rejections being 36·8 per cent. On the *second* examination, the examined were to the passed as 67 to 60, the rejections being 10·4 per cent. The *University of Cambridge* granted diplomas to 10 persons, and licensed *nine*. *Oxford University* examined *six* for diplomas, and granted it to them all. Of eight candidates for license, *seven* passed. The number of persons licensed to practice amounted, in England and Wales, in three years, to 2,721, viz., 1,576 surgeons, 953 apothecaries, and 192 physicians, being an annual average of 907 licensed practitioners.

ELLIS'S MEDICAL FORMULARY—*Correction.*—The publishers of this work respectfully request those persons who have the seventh edition, to correct a typographical error for the "*medicated hydrocyanate of potassium*" at page 83; wherein the symbol for an ounce is used in place of that for a drachm. The following is the correct prescription, and corresponds with the proportions directed in all the previous editions of the work:

℞	Potassii Hydrocyanici medicati	ʒj.
	Aquæ Distillatæ	Oj.
	Sacchari Purificati	℥iss.

Fiat Solutio.
Dose a table-spoonful, night and morning.

LARGE BILIARY CALCULUS.—The following case from our friend Dr. Fountain, presents many points of interest.—ED.

"DEAR DOCTOR,

Herewith I send you a biliary calculus. Presuming it is unusually large, an account of it may perhaps be worth recording in your valuable Journal. Having neither the means nor time to analyze it, I shall leave that for you to do, if you deem it of sufficient importance.

"The person who passed it was a female aged 78, of a large corpulent frame, and a biliary temperament. She had symptoms of jaundice on the first of May, 1844. She was attended by a neighboring physician till June 6th, when I was called in. Her skin and every part of her body was suffused with bile, and of a dark yellow color. She complained of pain about the præcordia and right hypogastrium, with total loss of appetite, accelerated pulse, white tongue, thirst, diarrhœa, ash-colored stools, &c.

"As she had been thoroughly mercurialized, I put her on the use of a strong alkaline solution, and large doses of extract of conium, diet of eggs, &c.

"By the 17th she was no better; and as symptoms of phlogosis were still manifest, I concluded there must be inflammation of the common duct, &c. I bled her freely, and applied a large blister over the region of the duct, and put her on the use of oxalic acid, half a grain in a cup of cold water every three hours, daily.

"Under this treatment she improved steadily, so that by the 25th her stools became bilious, and her appetite returned. In a few days she *seemed* quite well.

"She remained free from the disease till the first of October following, when it returned and became fully established. On the 22d she commenced the use of the oxalic acid, on which she placed great reliance. She had taken it about ten days without any relief. Sitting on her chamber at that time, her stools being thin she heard something fall in the vessel like a stone. She rose up and inspected the stool, and there she found the calculus I have sent you.

"Her husband washed it off, and undertook to break it with a hammer; but finding it so hard and *curious* he desisted, and laid it up for me. Her jaundice soon disappeared, and she has enjoyed excellent health ever since.

"It was originally uniform on its surface, and about as large as an ordinary nutmeg, and of much the same color, but rather more ovate. That part of the outer layer which is absent, was broken off by the hammer in the old gentleman's attempt to break it down.

"What agency the oxalic acid had in relieving the disease in the first instance, or removing the gall-stone in the last, your readers will, of course, judge for themselves.

"The calculus weighs now ʒ iss; and I presume, before any part was broken off, it must have weighed ʒ ij.

"Respectfully and truly,
"Yours.
"JAMES FOUNTAIN."

On analysis, we find the calculus above mentioned composed chiefly of cholesterine.—ED.

MEDICAL SOCIETY OF THE CITY AND COUNTY OF NEW YORK.—At a special meeting of the Medical Society on Wednesday, April 29th, the following gentlemen were elected Delegates to the *National Medical Convention*, to meet in this city on the first Tuesday in May:—James R. Manley, Isaac Wood, John W. Francis, Benjamin Drake, Gilbert Smith, W. W. Minor, F. U. Johnston, James Stewart, Thos. C. Chalmers, H. D. Buckley, W. P. Buel, James R. Wood, John J Heard, A. N. Gunn, Benj. R. Robson, John Watson, J. T. Ferguson, R. L. Morris, R. T. Underhill, S. P. White, J. R. Vankleek, John C. Cheesman, A. C. Post, Gurdon Buck, Jr., O. S. Bartles. Total, 25.

Clinical Advantages in New York.

In the January No. of our Journal, we offered some remarks on the importance of developing more fully the clinical advantages of this metropolis. We regret that the scope and spirit of these remarks have been misunderstood, and that our object in offering them has been, in some instances, entirely mistaken. Instead of wishing to depreciate the advantages furnished to the student by this city, while we exalted those of other places, our aim was solely to encourage such exertions and efforts as should make New York, beyond all competition, the grand centre of medical education in the United States. But to point out what ought to be done, it was of course necessary to show what the actual state of things, as regards clinical advantages, was at the time; and in doing this—if we did not actually underrate them—we perhaps conveyed the impression that they were considerably inferior to those of Philadelphia. If so, we owe it as an act of justice to New York, and the gentlemen who are here devoted to medical instruction—to correct such an impression, and to express the opinion, which we sincerely entertain, that no city on this continent presents, at the present moment, a greater field for clinical study, or more abundant facilities of every kind for prosecuting the study of practical medicine and surgery, than New York. For example, we have *daily* clinical instruction throughout the year in the New York Hospital; in which, during the year 1845, *twenty-seven hundred and seventy* patients were treated; presenting a greater variety of medical and surgical diseases than can be found elsewhere in any hospital in the United States.* We cannot furnish the exact number of important surgical operations, but we know from personal attendance that they are frequent, and that abundant opportunities are furnished for observing the treatment of every disease which occurs in our climate, together with many which prevail more especially in other latitudes, but which are brought hither by commercial intercourse. Attached to the Hospital is an extensive anatomical and pathological cabinet, consisting of preparations, casts, models, delineations, paintings and prints, which are very useful in illustrating the lectures, and contributing to the improvement of the student. When to this we add that a well-selected library of more than 5000 volumes is also accessible to all who choose to take the Hospital ticket ($8,00), we have a sum total of advantages unsurpassed in any public institution in the country. During the lecture term of four months, cliniques are held twice a week in the College of Physicians and Surgeons by Prof. Parker, and once a week in the University by Prof. Mott, at which a great variety of interesting cases of disease are presented and operations performed. Cases in midwifery are furnished by the professors in this department in both the Colleges, and both are supplied with extensive anatomical, surgical and obstetrical museums, with complete cabinets of materia medica, and chemical apparatus, and with all the necessary plates and drawings for illustrating the different courses. The Eye and Ear Infirmary is also open to students throughout the year, without charge; and lectures on this subject are delivered by one of the surgeons during the spring months, besides clinical instruction daily. In addition to the regular winter course at the College of Physicians and Surgeons, two other courses are given at the College, viz., a *fall* and a *spring* course—the first by the faculty, and the latter by an association of gentlemen, most of whom are connected with the different public institutions in the city. At the Hospital also a spring and fall course of lectures is given by the physicians and surgeons of that institution.

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* The Charity Hospital of New Orleans is perhaps an exception to this remark.

To sum up, during the past year, besides the regular course of winter lectures at the two colleges, there have been delivered, or are now delivering, the following lectures, by the gentlemen whose names are annexed :—

On Hygiene, by Prof. J. M. Smith ; Comparative Anatomy, by Prof. Watts ; Scrofula, by Prof. Parker ; Reproduction, by Prof. Gilman ; Anatomy and Diseases of the Eye, by Geo. Wilkes, M.D. ; Diseases of the Skin, by H. D. Buckley, M. D. ; Surgical Anatomy, by James Quackenboss, M.D. ; Pathology of the Chest, by A. Clark, M.D. ; General Pathology, by W. C. Roberts, M.D. ; Male Urinary Apparatus, by Prof. Parker ; Diseases of the Uterus, by Prof. Gilman ; Special Anatomy, by Prof. Watts ; Lithotripsy and Diseases of the Genito-Urinary Organs, by F. Campbell Stewart, M.D. ; Materia Medica and Pharmacy, by B. W. M'Cready, M.D. ; Ophthalmic Surgery, by A. C. Post, M.D. ; Surgical Anatomy and Genito-Urinary Organs, by G. Buck, M.D. ; Surgical Pathology, by J. Watson, M.D. ; Diseases of the Chest, by J. A. Swett, M.D. ; Pathology of Nervous System, by J. H. Griscom, M.D. ; Pathological Anatomy, by T. M. Markoe, M.D. ; Animal Chemistry, by L. Reid, M.D. ; Orthopedic Surgery, by Detmold ; All Branches of Medicine and Surgery, by J. H. Whittaker, M.D.

When to this we add the private teaching which is conducted without formal *lectures*, we think we do not exaggerate the advantages of New York as a place for thorough medical instruction in every department of medicine, when we say, that no other place in the United States can at this moment furnish a greater array of medical talent engaged in teaching, or more abundant advantages for making that teaching practically useful.

But great as these advantages are, they may by proper exertions be more than quadrupled, within a very short period. Two more hospitals are required for the accommodation of our poor population, each as large as the New York Hospital ; and there is a fair prospect, we think, that one, at least, will be established at a very early period. Bellevue Hospital, with its one thousand patients, must be made accessible to students of medicine, and that too without delay. It is a crying shame that such a wide field for clinical instruction should be actually lost to this city, to science, and to the world, merely to subserve paltry party, political purposes ;—to give to some favorite a monopoly of *private teaching* in that great establishment. Our dispensaries must throw open their doors, and allow clinical teaching not only to such persons as may be introduced by the physician in attendance, but to students generally. These are the great *desiderata now* to be supplied, and we shall not cease to agitate until the desired reforms are brought about.

PROFESSOR DRAPER'S WORK ON THE ORGANIZATION OF PLANTS.—This beautiful and philosophical work has received far less attention from American physicians than its merits deserve, and this, we have no doubt, is partly, at least, owing to the form of publication, viz., the quarto. In Europe, we have reason to know that it has made a most favorable impression, and is regarded as the very highest authority on the subject on which it treats. Carpenter, in his recent work on Physiology, of which we shall give an account in our next number, quotes largely from it, as do other recent writers of high standing both in Great Britain and on the Continent. We wish the publishers would bring out an edition in octavo form; when, we have no doubt, it would at once be adopted as a textbook in colleges, academies, and medical schools. We regard it as decidedly one of the ablest works of the age, and an imperishable monument of genius and philosophical taste. The same author has a text-book on Chemistry in press, which we have no doubt will supersede most others, as a manual on this subject. A History of Chemistry, also by Dr. Draper, will soon be issued in London.

PENNSYLVANIA HOSPITAL FOR THE INSANE.—From Dr. T. S. Kirkbride's Report of the Pennsylvania Hospital for the Insane for the year 1845, which is a very admirable document of 56 pages, we learn that 177 patients have been admitted during the year: 151 were remaining, 159 have been discharged or died, leaving 169 under treatment at the close of the year. Of those discharged, 80 were cured, 5 much improved, 24 improved, 30 stationary—20 died—*total* 159. We are glad to learn that during the year "scarcely a single strap or mitten, or any similar apparatus, has restrained the movements of any patient," and that none whatever has been used for the last eight months. We are also pleased to see recommended the plan of *forced ventilation* independent of atmospheric changes, for we are satisfied that proper ventilation cannot be ensured in hospitals or public buildings of any kind, by windows, doors, or other simple openings made for the purpose, without artificial aid. The Report is taken up with the usual subjects generally discussed in such documents, and is highly creditable to Dr. Kirkbride, the principal physician of the asylum.

LIFE INSURANCE.—SUICIDE.—"*The Mutual Benefit Life Insurance Co.*" of this city, have in a published pamphlet signified, that in all cases where suicide is committed in a state of insanity, on due proof thereof being furnished, the policy will be paid. This is creditable to the Company, and in accordance with those principles of integrity and honorable dealing, which, we believe, characterize all their operations.

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